IMPERIAL ETHIOPIAN GOVERNMENT

02382

SECOND FIVE YEAR DEVELOPMENT PLAN

1955-1959 E. C.
1963-1967 G. C.

ADDIS ABABA
October 1962

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Only methodical, step-by-step planning will yield and ensure enduring results. True progress is not measured by spectacular pronouncements but by demonstrable achievements. We believe in a progress that builds on a sound foundation and not on shifting sands. We believe in the adaptation of modern economic and social theories to local conditions and customs rather than in the imposition on Ethiopia's social and economic structure of systems which are largely alien to it and which is not equipped to absorb or cope with.

Can this be achieved from one dusk to the next dawn, by the waving of a magic wand, by slogans or by Imperial declaration? Can this be imposed upon our people, or be achieved solely by legislation? We believe not. All that we can do is provide a means for the development of procedures which, if all goes well, will enable an increasing measure and degree of what we seek for Our nation to be accomplished.

(From the Throne speech of His Imperial Majesty,
Haile Selassie I.
November 2, 1962).

H. I. M. HAILE SELASSIE I
ADDRESS TO THE NATION
October 11, 1962

The greater part of the world's population still lives in economically backward countries and the life it leads is consequently characterized by hunger, disease and other similar problems. Global peace and security can only be permanently secured if all peoples of the world pool their resources towards the complete eradication of man's common enemies — ignorance, hunger and disease.

It is well known that the international economic and social organizations established at, and operating in various underdeveloped countries in the world are helping the economically backward countries in different ways. Some wealthy countries are also manifesting their goodwill through granting loans and technical assistance. What the economically backward countries are looking forward to, however, is the application of the money now dumped on destructive armament to the solution of economic problems. Fully supporting this idea, Ethiopia has participated in disarmament conferences and is unfailingly struggling for world peace and man's welfare and prosperity. A nation can make rapid economic growth only when it makes use of foreign economic and technical aid and, if the people make every effort towards the proper exploitation of their natural resources.

In Our speech after Our State visits to various friendly countries on August 29, 1959, We noted the various reasons as to how advanced nations have achieved their present stage. In Our study of the various social systems in the course of Our extensive tour, We have found that the reason for their successful progress lies in the fact that they have accumulated enough capital which, in turn, made it possible for them to carry out better farming, financing various projects to develop their industries, harness their rivers, and in general exploit their natural *resources. Unless it is used for worthwhile investment, the hoarding of money would not yield dividends. This spirit also remains true in the case of this plan.*

It has been found out that planning is indispensable for the rational utilization of both a nation's resources and foreign aid or loans.

Having recognized that, in order to improve and raise the level of the Ethiopian economy and administration and so raise our people's standard of living and economy, a plan, based on the country's needs and capabilities, is required, We gave orders for the execution of the First Five Year Plan, which came into operation in 1949 E.C., prepared after a long period of study, on the basis of Our directives and by the Planning Board We had established.

As a basis of, and working procedure for, a national socio-economic policy, a plan is a means whereby a nation can be developed through the rational utilization of labour and machinery for the most important aspects of the country's needs. The execution of any such plan needs, however, national participation. Planning is the basis in the rational and sustained use of capital, man-power and time in the acceleration of economic development. The opportunities We have today in having at Our disposal those advantages which the now economically advanced nations acquired after long periods of trial and exertion, namely the means to step up the rate of economic growth and purchase equipment necessary for industrial and other purposes, enable Us to implement several projects in a much shorter time.

It is evident that prior to the First Five Year Plan Ethiopia was engaged in the execution of numerous development undertakings. Long-term projects were carried out in the respective fields of public health, road transport, telecommunications, air lines and other similar *aspects of development. Satisfactory results have been attained. Nevertheless, a plan, embracing Ethiopia's socio-economic growth, was prepared from a wide and detailed study of such undertakings as were previously carried out through experience and also for the rational utilization of labour and capital. The advantages of a plan are by no means limited to the government; a plan shows the respective goals of our country in each project, the required funds and their sources, as well as the success and failure of each year's endeavour.*

Though the targets set in the First Five Year Plan were not all reached, the experience gained is satisfactory. The works accomplished during the period of the First Five Year Plan are great and many; so are the changes made and improvements brought about in the phase of administration.

The history of planning shows that no pioneer plans were ever executed even partially, much less wholly.

Since a country that has a plan is aware of its requirements, Ethiopia will be able to acquire technical and economic assistance from international organizations and friendly countries for the implementation of the development projects included in its plan. Millions of dollars have been spent on the main projects carried out during the First Five Year Plan. These projects included: a survey of the Blue Nile basin, Wabbi Shebelli and Awash Valley development schemes, cement factories, oil refineries, textile factories, a sugar factory, highways, telephone lines, modern ports, aerodromes, transport jets, hydro-electric dams and equipment, the University and several modern schools for raising the school population by 47%, as well as other economic and social undertakings. In the field of private capital, several industries and similar development enterprises have been *established.*

We have never ceased to encourage foreign capitalists to work either in co-operation with Our people, or to invest their money on development works on their own. It has for long been part of the tradition of Ethiopia to welcome foreigners and to safeguard their rights and interests during their stay here. In the case especially of those foreigners who have invested capital on development projects in this country, apart from working in co-operation on the part of both Our Government officials and Our people, there has never been a case in Ethiopia's history when the property of a foreigner has been unlawfully confiscated. This is a source of pride for Ethiopia. Ethiopia will at all times welcome foreign investors who may be willing to employ their money for development works, either in partnership with Ethiopians or as private entrepreneurs. The necessary law pertaining to the money to be expended on development plans will shortly be published in the Negarit Gazeta.

As the period of the First Five Year Plan has now expired, We ordered that the Second Five Year Plan be duly prepared. After the Second Five Year Plan had been prepared and studied in detail by the Planning Board Committee which meets under the Chairmanship of Our Prime Minister, and the five Standing Study Committees, the Plan was presented to the Planning Board that We head. After an exchange of views on it and having realized that it has been prepared in accordance with the economic resources and needs of Our country, We approved the Plan and ordered that it be put into operation. As We have earlier stated, the Plan is to serve as a guide not only to Our Government but to the entire people in the Empire now engaged in the work of development.

It has been shown in detail in the Plan that for the Second Five

Year Plan, the amount of money to be spent on development projects and administration, both from Government and private sources, has been estimated at Eth. $ 2,670,000,000.

In order that the Plan may succeed in achieving its objectives, much work has already been accomplished in advance. Among those that have been given priority are those pertaining to the promulgation of the Public Servants' Pension and the Civil Service laws. For the Plan, We have ordered that various organizations be set up.

We have in the past made it known to you that We have formed several committees in all branches and departments of activity. These committees have been entrusted with the task of studying ways and means of effecting a lasting, and not a short-term programme of advancement, of finding methods of improving the administration, the application of justice, the spread of education as well as improving the system of land tenure. The Committees also study the possibility of making the administrative system of the Provinces meet modern demands and standards so far as present conditions permit, and also study ways of raising the standard of living of the people and their skill, as well as safeguarding the people's right to equality according to each person's standard and ability.

Among the main points in Our plan for the improvement, progress and advancement of Our people is that relating to the need for an equitable arrangement with respect to the payment of taxes as well as to the tenure and allocation of land. With this aim, We have annulled various taxes that landowners had to pay in the past, relieved them of extra obligations otherwise binding, allowed that only one tax be levied, and have ordered that those Ethiopians who do not have land give evidence to this effect and be made to own half a *gasha each to be used not only by the persons during their lifetime, but to be passed down from generation to generation as well.*

Furthermore, in accordance with the order We gave to the effect that those who do have land but lack money to develop it be granted loans, the amount of money given out for the purpose has now reached Eth. $ 3,000,000. So that the work may in future be carried out on an improved scale of performance, the setting up of a new bank that will lend money for development works is now under preparation.

We do not, however, feel proud or complacent about the progress so far made by Ethiopia in this respect as having accomplished enough. The present age compels man to go on improving. Since the way of living of people at any period is closely tied up with the particular conditions prevailing at the time, we cannot look back to Ethiopia prior to the 20th Century and criticize the manner of administration of our forefathers. The reasons and difficulties that made the way of living then what it was can be accurately known.

It would not, for example, be difficult to realize the problems and obligations created by the age we are living in now, which faced Ethiopia in her past endeavour to reach her present stage as well as in her future attempt at faster progress and development. As generations come and go, those assuming responsibility for the period do not cease to try and improve on the past in order to meet newly arising demands. In this respect, it is quite evident that to march with the time members of the coming generation should build on what their forefathers have bequeathed to them. It is because the present generation is cherishing and keeping intact what it has received from the past that it has succeeded in attaining its present stage of development, by making the necessary changes and improvements called for *by conditions now existing. This would require great foresight and the work accomplished so far as regards this task of great responsibility is no small matter. It has been fulfilled as a result of God's blessing and His divine guidance.*

Even though the system of land tenure as well as the collection of taxes in Ethiopia may have varying forms, it is quite evident that these have their foundation in the country's past history. However, even though such a system was only suitable to the time when it was being practiced, to make it go hand in hand with the age, and thereby serve as a safeguard for the interest and prosperity of the country and be a means for the strengthening of the unity of the people, the old systems of land tenure and certain rights pertaining to the payment of taxes have been kept in operation. Land is also being allocated to those Ethiopians who may not be owning any at present. It has, however, been found necessary that this be improved in the light of present conditions, needs and requirements. Having realized that the money collected from taxes would be used for the development programme of the Empire, and having thought it desirable that tax collection be carried out in accordance with the Proclamation, and that no distinction be made among Ethiopians, and so that all people be given equal rights as regards the payment of taxes, a committee was formed and ordered to study ways of improving on the present system of land tenure. Having reviewed the first part of the committee's report and recommendation, We have passed the following order of amendment :

1. *We have ordered that a bill be submitted to Parliament to be deliberated and passed into law to make people possessing land as "Riste Gult" and "Siso" pay normal tax on it to the Government Treasury.*

2. *The proposed proclamation be presented to Parliament for*

discussion with the final aim of being passed as law to improve on the traditional form of relationship, shown existing in the Civil Code, between land-owners and tenants.

3. *Those serving for "Feresegna," "Alenga" and Gala land and "Gult" allowances, to be paid salaries from the Government Treasury.*

Those who were formerly living on allowances from "Gult" and "Siso" to be given land.

4. *Government lands in the Provinces, owned by people on lease, to be given to those who have no land unless the person now possessing it has developed it with his own money and is not simply collecting regular revenue from tenants.*

5. *Crown lands throughout the Empire, the benefice of which has been allocated to augment the Civil List, will be distributed in three categories :* (1) *for development projects, such as industrial establishments, the building of townships and settlements;* (2) *as compensation for those people whose land has been taken over by the Government for development purposes;* (3) *to patriots and exiles and to disabled veterans who have not received land before. The land that may be left over after apportioning in the above manner, is to be given either to tenants living on it or to the landless people nearby, half a gasha each.*

6. *It is our wish that all Ethiopians who are to be given government land on the basis of the order given above shall, when receiving the land so donated by the Government to raise the standard of living of the recipient, pay for registration and transfer of name, Eth. $* 15 *per gasha of fertile land, Eth. $* 10 *per gasha of semi-fertile land and*

Eth. $ 5 per gasha of barren land, and so bring the land under their ownership.

As is explicitly put down in Article 38 of Our constitution, there is no need to point out that the Ethiopian people enjoy equality. Our instruction as regards reform in the land tenure system will reflect the same basic statement in the constitution. It is known to all that every Ethiopian should have land and be given money to cultivate the fallow land and that an organization to carry out this programme, has earlier been set up, is indeed well known by all. Unless the wealth of the people increases and unless they co-operate, their unity as a nation will be compromised.

Therefore we have made it in such a way that chiefs and elders, without their service in the past being forgotten, should live by working in co-operation with the people so that their own interest would be safeguarded, not to the disadvantage of others.

While the economic growth of our country and the living standard of Our people are being realized to the extent of the effort We are making, and while the benefits of the endeavour We are making for the growth of our country and the prosperity of our people, it should be the duty of every Ethiopian to co-operate and work hard towards their implementation.

All these are preliminaries of the Second Five Year Plan and We hope that several socio-economic achievements will be made during the period of the Plan.

The main objectives and targets of the Plan are :

1. *To achieve great economic results through the rational*

utilization of available capital and labour.

2. *To make use of different means of development in order to narrow the economic divergence between Ethiopia and the economically advanced countries.*

3. *To economize money as much as possible and invest it on some useful project in order to bring about an independent growth of the Ethiopian economy.*

4. *To obtain balanced and uninterrupted economic growth in order to raise the standard of living of Our beloved people.*

5. *To improve and expand education, public health, fine arts and industrial projects more intensively.*

6. *To encourage every citizen in Our Empire to be a participant in the endeavours for the economic and social development of his country, as much as his capacity and ability can allow.*

The largest portion of the national income comes from agriculture and the raising of livestock. Moreover, the greater number of the population is engaged in these occupations. For these reasons, in the period of the Second Five Year Plan, agriculture holds its place in the forefront of the Ethiopian economy, and a special plan has been drafted to expand agricultural production.

Moreover, it is designed to increase the quantity and improve the *quality of the crops of coffee in particular, which up to now has remained the backbone of the country's economy. Planning is also completed to provide the country's meat industry with 600,000 to 700,000 head of live cattle annually for local demand as well as for export.*

Since Ethiopia's mineral wealth is undetermined, it has been considered in the Second Five Year Plan to make more extensive prospecting to determine the country's geological wealth and open a new vista for its industrial growth.

In this Plan, it is intended to treble Our present industrial output by establishing a number of industries and factories which will utilize the country's raw materials from agriculture and mining. These industries will be useful in that they will boost the economic status of the country by producing industrial items of high demand in both local and foreign markets and also provide plenty of jobs for the people.

Realizing the great importance and usefulness attached to facilities of transportation and communications, it is designed to expand these systems by 28% in the period of the Second Five Year Plan.

It is also stipulated in the Plan to make necessary steps to better and multiply those social amenities, like education, public health, pension and other similar welfare measures, which reflect upon the social development of the country in general.

In Our effort to raise the living standard of Our beloved people, in Our endeavour to bring prosperity to Our country, the feeling of co-operation and understanding has always characterized Our people.

A special case is the recent development in certain provinces where people are seen voluntarily raising funds to build schools, clinics, roads and similar other projects. What can give one more pleasure than to see such a measure of self-help in one's life time? For the prosperity and progress of his own country, let every citizen of Our Empire strive hard to strengthen this esprit de corps *everywhere. We entrust the spirit of good-will to Our people to work diligently and co-operatively in order to arrive at the realization of this socio-economic development that has been launched by either Our Government or Our people.*

It is not sufficient to simply see and admire the natural beauty and fertility of Ethiopia. It is Our obligation to work upon and benefit from this country whose fertile soil has been granted us by Almighty God. We have to gain honour and pride for this country.

Because of her unity and independence Ethiopia had and still has jealous enemies and aggresive dissidents. It is therefore, the primary duty of every Ethiopian to safeguard the unity and freedom that has been fortified since time immemorial by the courage and bravery of Our forefathers. We have to maintain its integrity, to work and benefit from its existence.

So that Our people can live working and enjoying the fruits of their labour in peace and order We have given modern laws and made various proclamations. For proper administration of these laws in the governorates general, provinces, sub-provinces and districts of Our Empire, We have allocated judges for the courts, police for the security, and civil servants for running the government offices. We have time and again reminded the government officials that they were assigned to serve the interest of Our people and not the contrary.

Hence, We again would like to make it known to Our government employees that without losing integrity and honesty they are hereby instructed and ordered to work diligently in whatever occupation they are engaged, for the economic growth of their country.

We have also entrusted to the Planning Board Committee which is chaired by Our Prime Minister to publish and distribute the contents of the Second Five Year Plan as well as to strictly follow and execute the new plans at hand.

If each and everyone endeavours to co-operate and work in as much as his capacity permits, Our faith rests upon the Almighty God that He would bless the results for us.

IMPERIAL ETHIOPIAN GOVERNMENT
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PREFACE

Ethiopia's First Five Year Development Plan initiated an overall acceleration in this nation's economic and social activities. The experience gained in its implementation and the insight obtained from an analysis of its achievements have disclosed new opportunities and possibilities, whilst at the same time clarifying existing problems in the light of Ethiopia's changing conditions. The results already achieved and the experience already gained thus enable us to take increasing and better advantage of the scientific, technical, economic and social progress in other countries and to adapt them to Ethiopia's specific circumstances.

The Second Five Year Plan constitutes a logical continuation of the First, but with stronger emphasis laid on productive activities designed to provide increasing quantities of consumer goods and on the creation of new working opportunities for Ethiopia's increasing population. Stress is also laid on all kinds of research and promotion of statistical information so as to obtain adequate and reliable data for the most propulsive future projects. The continued construction of communication facilities with the intention of opening up new regions of the country is assured. Since a well-balanced programme for the nation's overall development cannot be limited to economic activities only, increased expenditures are envisaged in the Plan for social programmes, particularly in the fields of health and education, to keep pace with accelerated economic development.

A plan, however, exists only on paper, and unless the nation as a whole has grasped the spirit of the times and understood the urgent necessity of collective and co-ordinated effort, it alone will be of little value. The goals set forth in the Second Five Year Plan can be realized only if all members of the community, regardless of their individual positions and personal activities, exert themselves to the utmost and contribute to the full extent of their capacity. Voluntary contributions in the development of local areas, for example, for the construction of schools and clinics, roads and public buildings, must be counted on to provide an important share of the final result. The least development in the smallest community makes its own contribution to the progress of the nation. Personal sacrifices are necessary — indeed, they are unavoidable for the general benefit of the Empire. All sectors of the economy, both private and public, must strive hand in hand to the attainment of the Plan's objectives. Government departments, chartered agencies and private business organizations have all participated in the preparation of the Plan, and we are confident that they will now undertake the responsibility for its implementation within the frame of their activities.

Ethiopia's wealth in natural resources, her minerals, her water power, her fertile soil, her forests, and the vast human resource which exists in a devoted and energetic population, justify the optimism which finds expression in the goals enunciated in the Second Five Year Plan.

Addis Ababa, October 1962.

H. E. Tsehafe Taezaz Aklilou Habte Wold
Prime Minister and Minister of Pen

INTRODUCTION

1. This document presents the goals of the Second Five Year Economic and Social Development Plan for 1955-1959 (E. C.) Its main features are determined by the directives and suggestions of the Imperial Planning Board headed by His Imperial Majesty, Haile Selassie I, and particularly by the long-term objectives set before the Nation.

2. The preparation of this document started in the Planning Office in the middle of 1961 with research and evaluation of recent trends, particularly of the development achieved during the period of the First Five Year Plan. In its later stages the work was extended by including Ministries, Agencies, and a large number of institutions which prepared special projects and relevant analyses. The work was co-ordinated, supervised, and guided by the Imperial Planning Board Committee in accordance with directives of the Board and was supervised by five Standing Preparatory Committees which have examined, discussed, and proposed the development goals to be achieved, as well as the implementation of the planned targets.

3. In order to ensure uniformity in all the stages of planning, the following standards have been accepted for the Second Five Year Plan:

(*a*) National Income computations have been made on the basis of international methodology recommended by the Statistical Office of the United Nations;

(*b*) In order to ensure the integration and balancing of the development projects of different branches of the country's economic and social activity, the Planning Office has prepared a temporary Standard Classification of All Economic Activities which is adapted to present Ethiopian conditions. On the basis of this Classification, as well as of the Planning Methodology which is being worked out in the same Office and which sets an appropriate planning procedure and a uniform system of planning forms and elaborating tables, the development programmes of different Ministries and Agencies were uniformly elaborated and built up.

(*c*) In order to avoid price variations in the presentation of real changes, values had to be expressed in constant prices. Since the

First Five Year Plan was based on prices prevalent in 1956 (G.C.), it was considered useful to employ the same prices for the Second Five Year Plan. However, technical reasons did not allow such procedure, and for the projections of all aggregates which had to be expressed in value terms, prices of 1961 (G.C.) had to be used. Current prices were used only in analyses of current movements, for instance in the analyses of the terms of trade where it was necessary to take into account the influence of price variations on the national economy.

(*d*) For those products or services which for the time being do not appear on the market, or appear on it only partly, corresponding prices of those or similar products or services having a definite market price have been used. The largest use of such imputed value took place in estimations of agricultural production and of housing.

(*e*) There are two calendars in current use in Ethiopia: the year beginning with January 1st (Gregorian Calendar), and the year beginning with the 1st of Maskaram (Ethiopian Calendar), i.e. September 11th. Since the Imperial Planning Board decided that the First Five Year Plan terminated with the Budgetary Year 1954 (E. C.) the Second Five Year Plan period had to begin in the following month, which automatically excluded the use of the Gregorian Year as the Planning Year. The fact, that there is only a few months difference between the two years and that the annual plans are closely linked with the annual budgets and their execution, has been taken as the argument for accepting the Budgetary Year as the Planning Year.

(*f*) Accordingly, the Second Five Year Plan Period begins on 1st Hamle 1955 (July 7, 1962 G. C.) and terminates on 30th Sene 1959 (July 6, 1967 G. C.). The year for comparison purposes, which is always the year preceding the planning period, is the Budgetary Year 1954 (or the Ethiopian year 1954, if the data cannot be rearranged and adapted to the Budgetary year).

(*g*) The years indicated in the Plan are always according to the Ethiopian Calendar. In exceptional cases where the Gregorian Calendar is used there is a corresponding mark (G. C.) following the year.

4. The collection and compilation of the relevant statistical data

presented a serious difficulty in the elaboration of the Second Five Year Plan. Planning demands a well-organized statistical service and a uniform statistical system based on uniform statistical standards which provides homogeneity of records and a consistency and comparability of data in all aspects. However, since the statistical service in Ethiopia is not yet completely organized, certain data had to be based on estimates. Thus, for instance, the number of inhabitants had been based upon the estimate which had been made for the First Five Year Plan. This estimate is supported by various estimates carried out subsequently by different institutions. In order to obtain data on agricultural production all the existing sources of data pertaining to agriculture have been submitted to investigation. A special commission of experts checked the existing data by applying various methods, mostly by assessing the amount of production on the basis of the probable per capita consumption of a particular agricultural product, by making use of data on the expenditure of agricultural raw materials in industry, and of data on the export of agricultural products, as well as varied research carried out in individual regions or of particular agricultural crops. For animal-husbandry data the number of species of livestock quoted in the First Five Year Plan has been taken as a basis because no other more reliable data were available. Norms on the livestock turnover were worked out in consultation with experts from the Ministry of Agriculture, FAO, etc. (fertility, losses, slaughtering, average weight, and dressing weight). On the basis of these norms changes in the number of livestock and the size of livestock production have been calculated. In determining the national income use was made of relatively reliable data on economic and social activities. To determine the national income from agriculture, handicrafts, and trade, data derived from the aforesaid estimates of production, population, employment, and turnover were used. Naturally. all these estimates contain a margin of error but it has to be pointed out that, though certain figures may not be correct in their absolute terms, the order of magnitudes and the trends shown are believed to be sound.

Addis Ababa, Nehase, 1954.

Chapter I.

OBJECTIVES OF PLANNING FOR ECONOMIC AND SOCIAL DEVELOPMENT

1. Inspired by the farsightedness of His Imperial Majesty Haile Selassie I, the Five Year Development Plan 1957-1961 (G.C.) was introduced as the first document of overall economic and social policy in Ethiopia. Ethiopia became the first African country to commence comprehensive planning for her economic and social development. The introduction of planning was a progressive step with far-reaching consequences. It was based on the conviction that progress could be accelerated only by a proper selection of targets and rational utilization of available resources. The old, spontaneous way of growth was not acceptable to Ethiopia, particularly in conditions of modern technology and contemporary life, and planning for economic and social development was considered the only scientific method of formulating policy, and the most efficient means of its implementation.

2. By adopting planning, the Government showed its determination to accelerate the socio-economic development processes, and to shorten the time needed to raise the economy and society to a higher level. From the historical point of view, the introduction of planning in Ethiopia was one of the many national undertakings which have been carried out over the last few decades with the aim of modernizing all aspects of life and human activity. It is also a very significant undertaking, for only by planning can national objectives be determined, their priorities assessed, and resources allocated.

3. Beside the long and heroic history of Ethiopia, full of struggles for independence, freedom and human rights, modern economic and social development is a recent introduction. It took place particularly after the Liberation and during the First Five Year

Plan period, when new institutions and economic activities were started. However, because economic and social development originated from a traditional basis, it could not achieve self-sustained economic growth. Conceived as an integrated part of a long-term development, recent economic and social progress is a sound and promising beginning to a better future.

4. As in other developing countries, planning for economic and social progress in Ethiopia should eradicate poverty, disease, illiteracy, and ignorance. It should increase national production, productivity of labour, and wealth, emphasize education, as well as the cultural values, and raise the standard of living of the people. In fact, developmental planning has to overcome the poor heritage of the past and to introduce innovations and improvement. The period which Ethiopia is undergoing at present is of a transitory nature, since it comprises its own traditional patterns of economic and social life, as well as new ones. This is why the path of development and the planning approach and techniques employed should reflect Ethiopian traits which link together national traditions and scientific, cultural, and technological achievements of the modern world.

5. Ethiopia's future economic and social development is not only a challenge to the Nation, but is also of great international significance. Owing to her heroic history and present international position, Ethiopia's role in the modern world is much more important than her size and economic power, so that economic and social development is not purely an internal matter but is also a subject of international and particularly African interest. National development should strengthen African and international integration; national experiences in planning have to be exchanged with other nations, so as to facilitate economic and social development. This is one of the features of contemporary international co-operation, where each nation by its own development contributes to the general progress.

6. The Ethiopian Development Plan is a national programme, and as such it is a programme of development for the whole Nation. Planning is not something merely carried out by the Government for its own purposes only, but extends to all economic activities and all social services, whether provided by the State or by individuals. In fact, the Plan is a general framework, within which everyone should get his proper place in order to contribute to national progress and at the same time provide for his own better present and future.

7. The economy of Ethiopia is a mixed economy, wherein public, private, and co-operative initiative have to play their respective role. The Plan has to guide and co-ordinate the public and private efforts and to ensure that one side completes and complements the other. Various development projects concerning either economic activity or social services are to be undertaken by the public, as well as the private sector, having in mind highest efficiency and national interest. Being equally important parts of the national economy, both sectors are closely interrelated, and will have to contribute to the national development each in their own way.

8. The ultimate goal of economic and social development is to raise the standard of living which primarily depends on the existing economic and social circumstances. Not only nutrition and diet, clothing and housing, transport facilities and other material goods and services but other services and values, such as education and health, culture and arts, human rights, social security and national independence, have a decisive impact on living conditions. The most important components include working conditions, how the people produce, what technology and knowledge they use, how efficient the work is in terms of effort and returns.

9. Improvement in living conditions requires better utilization of the available natural, human, and financial resources which should result in a larger and more diversified production of goods and services. Ethiopia fortunately abounds in various natural resources. To utilize this abundant wealth for the benefit of the Nation, more

labour and higher efficiency, as well as better equipment, have to be used. This calls for larger investment both in equipment and human resources, which is actually the basic condition for the rise of labour productivity. To meet the capital and human investment requirements, additional domestic saving has to be provided, arising from the growth of the national income, as well as from an increase in saving capacity. In addition, everybody will have to work hard and acquire new knowledge and skills in order to utilize properly the equipment and increase efficiency. Thus, national progress and the improvement of living conditions call for co-ordinated efforts of all Ethiopians, wherever they work, and whatever their occupation or age might be.

10. Whereas overall national development is conceived as a long-term process, its economic, social, and political objectives have to satisfy fully the long-term aspirations and wants of the Ethiopian people. Having in mind the present pattern of the national economy, the feasibility as well as the need for progress, the long-term objectives of economic and social development to be set before the Nation are the following:

(*a*) to increase the productive capacity of the economy, in order to secure an abundant and diversified production of goods and services, and to accelerate the rate of economic growth by a better utilization of available resources, with the aim of diminishing the discrepancy which exists between Ethiopia and the industrialized countries;

(*b*) to change the existing technology by introducing modern machinery and equipment, and to raise the skill and productivity of labour;

(*c*) to raise the saving and investment potentials of the country by accelerating the growth of saving, with the view to attaining a self-sustained economic development;

(*d*) to improve living conditions and to raise the standard of living of the population according to growing possibilities and by a steady and continuous development of economy;

(*e*) to provide the Nation with better social services, particularly education, public health, social security and cultural services, so as to affirm and strengthen the personality and integrity of the Ethiopian people;

(*f*) to offer all the citizens an equal opportunity to contribute to the economic and social progress of the country;

(*g*) to create a sound economic basis for National Defence and security, in order to ensure peaceful development to the Nation, and to contribute to world peace and progress.

In the course of future economic and social development and with the aid of subsequent Five Year Plans, the present subsistence and family type of economy and society should undergo radical changes, and be transformed into modern ones. The growth of the economy will strengthen Ethiopia's position in the World and African economy, and help her to acquire a better position for her goods on the world market.

Chapter 2.

DEVELOPMENT DURING THE FIRST FIVE YEAR PLAN

1. The First Five Year Plan, covering the period 1957-1961 (G. C.) was extended by the decision of the Planning Board, to the end of the budgetary year 1954 E. C. The expired planning period represents a valuable experience. It is a hard truth that economic and social development presents a continual process which does not terminate with the expiration of the planning period. Therefore any evaluation of the development in the past period should show what has been accomplished in the economic and social fields, and where the country stands at the beginning of the Second Five Year Plan. Moreover, this evaluation should throw light upon development trends and indicate the factors which influenced the dynamics of development. It should also emphasize the problems which the past period left as an inheritance to the Second Five Year Plan and illuminate the weaknesses which have been manifested in the implementation of the Plan. The analyses of recent development should also help the formulation of targets of economic and social development for the following planning period.

First Five Year Plan targets

2. According to its socio-economic aims, the First Five Year Plan represented a first stage programme in the development of a modern economy in Ethiopia. This Plan set forth the following basic targets: (1) to give priority to the development of infrastructure which represents a prerequisite for accelerating economic growth; (2) to raise the level of education and to devote attention to the training of technical personnel for the implementation of the five-year programme; (3) to accelerate the development of agriculture which represents the major sector of the national economy and contributes the greatest part of exports and industrial raw materials; (4) to establish processing industries for the abundant supplies of domestic raw materials and for the requirements of the domestic market; and (5) to direct

economic, and particularly financial policy, toward mobilizing financial and human resources for economic development.

3. The investment policy anticipated for the First Five Year Plan was determined by the targets of economic and social development. Out of Eth. $ 673.6 million total investments, an allocation for transport and communications of Eth. $ 240.0 million or 35.6 per cent was foreseen; for industry, including mining, electricity and manufacturing industry, Eth. $ 138.0 million or 20.5 per cent; for agriculture and forestry, including farmers' investments in kind, Eth. $ 182.1 million or 27 per cent; for education, health, and community development, Eth. $ 57.0 million or 8.5 per cent, etc. The structure of investments has not been optimal in the sense of accelerating economic development, as it has been affected by works that had already begun in accordance with previous Government decisions.

4. The available domestic and foreign financial means were not sufficient for an accelerated development of material production, and because of this the increase in the national income was smaller than it would have been had investments been directed in a larger measure towards an increase of production. The foreseen increase of the national income from 1957 to 1961 amounted to 16 per cent, giving an approximate annual rate of growth of 3.7 per cent, It is a significant fact that the First Five Year Plan had anticipated relatively most rapid growth in industrial production. There had been a doubling of the industrial output, while the increase of agricultural production rose by about 11 per cent.

5. The extension of the internal market was one of the basic aims of the First Five Year Plan. Together with the growth of production and employment an increase of purchasing power of the population was foreseen, as well as a strengthening of the monetary part of the national economy. On the other hand, economic development rendered possible the extension of foreign trade, and the Plan envisaged a 25.2 per cent increase of exports from Eth. $ 181.9 million in 1957 to Eth. $ 227.8 million in 1961. In the same period the value of the total imports was estimated to increase by 21.5 per cent from Eth. $ 170.5 million to Eth. $ 207.3 million in 1961.

National Income and Population

6. The 1954 national income estimate, computed on 1953 prices, amounts to Eth. $ 2,038 million*. Compared with the first planning year (1957 G. C.) there is a total increase in the national income of 11 per cent, and the annual rate of growth of the national income over the First Five Year Plan is estimated at 3.2 per cent. It is much higher than in previous periods when it was about 2 to 2.5 per cent. The pace of growth of the national economy continued to accelerate during the First Plan period, and this can be considered a good indicator of the economic progress of Ethiopia.

7. The fulfilment of the national income target has been estimated at 95 per cent, while the rate of growth was lower by 0.5 per cent than had been anticipated by the First Five Year Plan. The implementation of the national income target fell short of its expectation because development projects had not yet matured, as well as to shortage of foreign financial resources.

8. Over the First Five Year Plan period the total population of Ethiopia is estimated to have grown from 19.4 to 21.0 million. The average rate of growth of population had been estimated at 1.6 per cent per annum, slightly more than in the previous period (1.5 per cent). This is a consequence of a decrease in mortality due to the improvement of living conditions and health services. However, the economic structure of the population did not change substantially, about 90 per cent of the total population depending on agriculture, whereas about 10 per cent depend on nonagricultural activities. In spite of the growth of the cities and urban areas, the percentage of urban population is low, and does not exceed 6.3 per cent of the total population. It is a peculiar feature of Ethiopian economic development that the growth of population, which was not absorbed by the nonagricultural activities, did not reduce the standard of living. Thanks to the abundant natural resources, the standard of living of the rural population has improved, and this

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* The First Five Year Plan anticipated the rate of economic growth in terms of national income, therefore this chapter deals with national income, while the others deal with gross national product.

is particularly true as far as rural housing, nutrition, transport, education and health, etc. are concerned.

9. Owing to the faster growth of the economy than of the population, the estimated national per capita income rose from Eth. $ 89 at the beginning, to Eth. $ 97 by the end of the period. The average rate of per capita income growth is estimated at 1.7 per cent per annum, which is a sign of a progressive economy. The recent trends of economy and population give a promising outlook for the future, because Ethiopia is no longer in a stagnant economic position, which is often characteristic of less developed countries.

Saving and Investment

10. Due to the low national per capita income, the domestic saving income ratio did not exceed 5 per cent of the national income. Over the extended Five Year Plan period, comprising in fact five years and a half, the total investment, both monetary and in kind, was estimated at Eth. $ 839.6 million. Investment in kind had been made especially by the rural population, amounting to about Eth. $ 150 million. Domestic monetary investment was supplemented by foreign resources of about Eth. $ 170 million, the greater part of which came towards the end of the period.

11. Investment in kind had an important role in the rural areas by keeping the pace of the agricultural production above the growth of the population, and by helping the improvement of rural housing. This kind of investment is particularly important for subsistence economy, where the additional work provided by the rural population can improve living conditions. However, for the growth of the whole national economy, monetary investment was much more significant, since it was intended to develop the propulsive sectors.

12. The total investment anticipated by the First Five Year Plan was Eth. $ 673,6 million, while Eth. $ 839.6 million have actually been invested.

Investment in Main Sectors During the First Five Year Plan

(In Millions of Eth. $)

SECTOR	*Plan*	*Fulfilled*	*.Index of Fulfilment*
Agriculture & Forestry (1)	92.1	109.9	120
Mining, Power & Manufacturing	138.0	159.8	116
Transport & Communications	240.0	287.3	120
Social Services	57.0	39.0	68
Housing (1)	122.5	206.8	169
Other Activities	24.0	36.8	153
Total (1)	673.6	839.6	124

It should be noted that the total anticipated investment was surpassed by 24 per cent. However, housing and transport and communications, which actually do not contribute directly to the growth of the economy, received the largest share, close to 60 per cent of total investment. On the other hand, the directly productive sectors, such as agriculture, mining and manufacturing received lowest priority, and this was in fact the main reason why the national income target, foreseen by the Plan, was not reached during the extended planned period.

13. There were several factors which influenced the implementation of the investment programme. First, the nonavailability of matured programmes for various development projects had a very serious impact. Whereas the road construction programmes were highly elaborated, the industrial and mining projects were lacking due to the fact that the industrialization of Ethiopia was only in its early stages. Foreign resources, which should at last have covered the equipment costs, were short at the beginning of the Plan. Only in the middle of the Plan period were foreign economic assistance schemes established, enabling the Government to contract appropriate financial arrangements. Housing attracted a great part of the monetary investment expenditure due to a growing demand, particularly in Addis Ababa and some other towns. This was, perhaps, also a sign of an absence of industrial entrepreneurship, as well as of inadequate mobilization of domestic savings for development purposes. Finally, there were only few development agencies and they were not in a

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(1) Including investment in kind.

position to provide all the facilities required for prospective domestic and foreign investors.

14. The dynamics of the investment in relation to time were, therefore, not optimal. In the first years of the Plan very little had been invested, so that investment activity increased rapidly at the end of the period and in the last two and a half years about 60 per cent of the total investment amount was expended. The experience of the implementation of the investment plan in the last year is in this respect encouraging, because it shows that the investment absorbing power of economy is growing steadily. In the coming years it is to be expected that the investment made during the last two or three years will yield returns, which will be an important contribution to the growth of economy. All these are visible signs of an advance of the dynamics of the Ethiopian economy which should be utilized to full extent in the following period.

Agriculture

15. The First Five Year Plan targets concerning agriculture have been mainly fulfilled. Due to investment in cash and kind a somewhat more rapid increase in production has been realized than in the growth of population. Agriculture continued to be the most important sector of the economy, not only in its contribution to the national income, but also as far as exports and internal trade were concerned. According to very rough estimates, the production of cereals increased during the planned period from 4.1 to 4.5 million tons, while the number of cattle rose from 23 to 25 million head. The exports of agricultural products have also recorded an important growth: exports of coffee were higher at the end of the plan period by more than 1/5, hides and skins by more than 1/2, and lentils more than 2.8 times greater than at the beginning of the peroid.

16. The greatest attention was devoted to the improvement of coffee cultivation. New plantations covering 4 thousand hectares, as well as a coffee nursery, have been erected, but the methods of harvesting, cleaning and processing are still inadequate, and this has been partly responsible for the low price of Ethiopian coffee on the world market. The same holds good for hides and skins, which also are

not properly processed for export. In spite of all the efforts of the Government to promote coffee exportation, there still remains large scope for further improvement.

17. Cereal production could not meet the growing demand of the population, so that Ethiopia became an importer of wheat (45,000 tons in 1952), instead of being an exporter, as she was 5 or 6 years ago. This is actually a great handicap to the national economy, which is caused not only by insufficient production, but also by transport problems and other factors. The growth of domestic industrial crop production which was anticipated by the Plan was not fully realized, particularly in cotton production which fell short of the targets, with the result that large imports of raw cotton had to be made to meet the growing consumption of the new textile factories.

18. Livestock population continued to increase as in the previous period, following the traditional pattern of cattle raising. Slaughter-houses which have been erected during the First Five Year Plan period will undoubtedly stimulate animal husbandry. However, the veterinary service was not efficient enough to protect the major cattle raising regions from disease and death losses. It should be pointed out that animal husbandry is still far from being the propulsive economic activity it should be, considering the capacity of the livestock population and feasibility of exploiting it.

19. The erection or extension of large-scale farms, based on modern technology and efficient equipment, is a promising sign of the agricultural development. Large-scale farms did not have a decisive influence on the growth of agricultural production; some of them, such as Awassa, Tendaho, Botter and others, have been started only recently, and are still in a preparatory stage. However, experience already gathered indicates that large-scale modern farming is the right way to develop Ethiopian agriculture, especially since there is much virgin land to be settled.

20. At the end of the First Five Year Plan agriculture remained the greatest reserve for economic development in respect of abundant land, large livestock wealth, and human potential. Not being

sufficiently used, either for its own progress or for the growth of other industries, it remained an inactive asset. During the past period it was ascertained that agriculture can progress only if other industries, particularly the processing industries, transport, trade and exports progress. Except in the case of cereals and cotton, the growth of agricultural output was such as to meet the increasing demand arising from the growth of the population and the modest requirements of industry, and this is in fact due to the availability of land, and to a specifically low density of the population which prevails in Ethiopia. However, such growth of agriculture can be maintained only at a low level of overall economic development. Since the economic development will be faster in the course of the Second Five Year Plan, it is obvious that agriculture has to speed up its pace of growth, so as to be able to satisfy the growing demand for agricultural commodities.

Mining, Power, and Manufacturing Industry

21. Owing to the fact that the mineral wealth of Ethiopia was largely unknown, the First Five Year Plan suggested intensive surveys and prospecting for precious metals as well as for other deposits, and over the planned period, the main attention was devoted to prospecting for gold, potassium, and potential oil fields. Aerial prospecting of some other regions was also carried out as the first stage for future detailed prospecting work. While the prospecting for gold resulted in modernized and expanded gold mines, potassium came to its final research stage, and oil prospecting was brought near to its end. These are two promising fields for future mining activity, which will contribute to the growth of economy even in the course of the Second Plan.

22. Surveys and prospecting for iron ore and other minerals failed in the past period due to the lack of private interest, as well as to the shortage of public credits. This may be considered as one of the major weaknesses in the implementation of the First Five Year Plan. Owing to the slow pace of prospecting work, there is no definite conception to what extent the mineral wealth can be used for future development. The consequence is that the iron and metal processing industries have to be postponed for two or three years, since they must be preceded by the opening of mines. For-

tunately, by the end of the period under reference promising signs have been seen for erecting a steel mill, as well as for starting glass and other industries based on mineral raw materials.

23. Electric power belongs to those industries which have been most developed in the past five-year period. In addition to the construction of the new hydro-electric power plant at Koka, the capacities of existing hydro-electric and thermo-electric plants have been expanded. In this way the installed power of all the public power stations has been increased from 32,000 kilowatts at the beginning of the Plan, to 82,000 kilowatts in 1954, or by 156 per cent. In addition, the exploration work has been finished, and the construction has begun of a new hydro-electric plant in the basin of the Blue Nile (56 million kilowatt hours), as well as of other smaller plants. Parallel to the construction of new productive capacities the distribution network has been expanded and among the most important is the high tension line Koka - Dire Dawa. It should be mentioned that the capacity of the electric power plants is much greater than the actual consumption, and this lagging of production behind productive possibilities points to the existence of power reserves which can facilitate economic development in the coming period. In 1954 the production of energy amounted to about 145 million kilowatt hours.

24. The development of manufacturing industry in the past period shows two important facts: first, that industry has begun to penetrate the structure of national economy, and second, that the economy was not yet sufficiently penetrated by industrialization. The results achieved so far are encouraging but modest; they do not exceed an initial stage of the development of industry. Gross industrial output grew from Eth. $ 73 million to Eth $ 116 million over the past five years, but the contribution of manufacturing industry to the national income remained small.

At the end of the First Plan period the dominant positions were occupied by food industry (including beverages) and textile industry; whose joint share was about 81 per cent of the total output of manufacturing industry, leaving all other industries participating by only 19 per cent in the total manufacturing output. Such a structure is typical of the first stage of industrialization and it has not changed if compared to the structure at the beginning of the First Five Year Plan. It should be noted that building material and other nonmetallic mineral products showed a visible increase in production. Other branches which existed at the beginning of the planned period increased rather slowly, whereas the production of timber processing decreased. It should be pointed out that few new commodities have been added to the previous production.

25. The actual investment in manufacturing industry was larger than had been anticipated, viz. Eth. $ 80 million as against Eth. $ 57.1 million. Several industrial projects of great importance to the national economy were started but not completed during the period. Their output over the Second Plan period will largely contribute to the growth of industrial production, although the structure of the total output of the manufacturing industry will not change in consequence. On the other hand, many industrial projects which had been foreseen by the Plan were not erected due to various reasons. Both factors have contributed to the discrepancy between investment and output, so that whereas the investment programme was surpassed by 41 per cent, the plan of production in monetary terms was underimplemented by 33 per cent.

26. The initial stage of industrialization is not an easy phase for a developing country; there are many obstacles to be surmounted, both of an internal and external nature. In spite of the many difficulties with which Ethiopians had been faced the industrial development over the last five years appears to be very encouraging. Not only from the point of view of current economic activity, particularly in respect to imports of textiles, sugar, etc., but also from the point of view of a long-term economic development, the First Five Year Plan's industrial programme was a very stimulating one, and at the end of the First Plan period, Ethiopia possesses many modern industrial undertakings. The industries already established require additional agricultural raw materials, and they stimulate the growth of agricultural production. Existing industry is able to produce sufficient consumers' goods, which are a base for domestic consumption;

it contributes largely to the domestic saving, and it is a sound basis for further industrial expansion. All this is actually a good starting point for a faster industrialization which can take place in the course of future Plans.

Transport and Communications

27. Large-scale construction of roads and an increase in transport facilities are an important sign of the economic development of Ethiopia in the recent period. Road construction was to a certain extent overstressed, because it was not in conformity with the other economic activities which it should serve. More investment means have been spent than were foreseen by the Plan, even though the Plan had also set excessive limits for the development of transport. Several highways with modern carriageways have been built and other roads have been improved, so that today Ethiopia has nearly 4.738 km. of all-weather roads. In the period the problem of local traffic in Addis Ababa has been temporarily solved by the increased use of buses. The number of motor vehicles has increased rapidly, from 18 thousand to 25 thousand, with the consequence of better transport facilities.

28. Other kinds of transport have also been improved over the past period. A large-scale programme of airport construction was started, and new aircraft will be acquired at the beginning of the Second Plan. In accordance with the First Five Year Plan the new Assab Port was constructed, being a very important step to further development of international trade, but the maritime fleet programme was not implemented according to the First Plan, with the consequence that Assab Port was inadequately used. The existing railways did not make any significant progress in spite of the growth of the volume of internal and foreign trade. The telecommunication system was expanded over the planned period, while the postal services remained unchanged.

29. The development of transport and communications was not motivated only by economic requirements. Other factors, such as foreign credits previously arranged, the existence of already established transport and constructing agencies, and the advanced stage

of studies, helped very much the growth of transport and communication facilities. In principle, not much expansion of the road network could be seen, because Ethiopia is a spacious country where many regions are not yet opened. The weakness of the road construction was in the expensive projects and methods of construction; the use of machines did not increase the possibility of engaging local man power, and due to this many positive economic effects which could have been realized were not achieved. The experience of experimental sections of moderate-scale roads which were started by the end of the First Plan, emphasized the need for a radical change in the methods of road construction. Another problem which arose during the First Plan was the disproportion between transport network and equipment, and as a result the contribution of transport and communication to the national income was smaller than it should have been, and the services did not meet adequately the needs of the economy.

Foreign Trade

30. Recent foreign trade trends may be taken as an illustration of a positive, but as yet not sufficiently speedy development of the Ethiopian economy. During the First Five Year Plan period total exports increased from Eth. $ 155 million to Eth. $ 184 million, while imports increased from Eth. $ 167 million to Eth. $ 228 million.

The volume of exchange of goods with foreign countries grew rapidly: the average annual increase amounted to 3.5 per cent for exports and 6.4 per cent for imports. Exports and imports during the planned period showed, in fact, a continuously increasing trend, which started in the first postwar years.

31. The turning point in export-import relations was 1951, when the balance of trade began to be negative, and continued to be so even in later years. The reasons for this were the rapid increase of imports and the unfavourable terms of trade. Imports of capital goods and goods in process largely contributed to the negative balance of trade, and consumer's goods have also influenced the rapid growth of imports with a considerable participation of durable goods. Exports were not in a position to keep up with such a fast growth of

imports, because the decreasing trend of agricultural prices on the world market for products which Ethiopia mainly exports was very discouraging, while industrial prices have had a rising tendency. This also handicapped the economy of Ethiopia, as well as of other developing countries which are producers of raw materials and importers of manufactured goods. In spite of many external difficulties, the First Five Year Plan target for export was realized in full in quantity, though it was not realized in terms of value.

32. The main export articles during the planned period were coffee, hides, skins, oil seeds, cereals, and meat products, which, by the end of the Plan, comprised 87 per cent of the total exports. The basic imported products were cotton and cotton products, liquid fuel, equipment, transportation means, and metals and their products which comprised 64 per cent of the total imports. Taking into consideration the level of development and the structure of economy, a dominant share of agricultural products and raw materials in exports, and an outweighing participation in imports of industrial products represent a normal situation. However, it is a source of many difficulties and losses to the Ethiopian economy, and it is necessary to strive to change it as soon as possible.

Social Services

33. The Government made considerable efforts to extend the social services, and to encourage overall social development. The First Plan had anticipated a further development of the social services and had initiated the Community Development Programme. Besides the various measures which had been undertaken to implement the programme concerned, the public servant pensions scheme was studied and will be started in 1955; the broadcasting system was expanded and diversified, cultural life was encouraged in all respects, new technical and other reviews, as well as newspapers, were established, etc. The Government offered Addis Ababa as the seat for the United Nations Economic Commission for Africa and provided all the facilities in this respect. Promising changes occurred in social and cultural life, not only in Addis Ababa and the urban areas, but also in the countryside.

34. During the past five years the Government opened 82 new schools and it is particularly significant that the number of Academic

Secondary Schools was trebled while the number of Special Secondary Schools increased 4.4 times. The lack of Special Secondary Schools formerly presented, and still presents a bottleneck in the educational system. The total number of pupils and students in the Government schools increased by 32 per cent. and it is noted that the number of students grew faster in the higher than in the primary schools. The increase in number of students in general was more rapid than the increase of educational institutions: this is indeed an encouraging sign because in this manner the fixed assets of educational institutions are being better utilized.

35. In spite of all improvement secondary and higher education at the end of the First Five Year Plan were scarcely developed either in the absolute or the relative sense, and these schools were attended by only 4.3 per cent of the total number of pupils and students. Even the primary schools comprised a relatively small number of school-age children, hardly 10 per cent of the total number. The best situation as far as enrolment is concerned, was in the first grade which was attended by almost 30 per cent of school-age children, and the worst was in the eight grade which was attended by a mere 2.5 per cent. The fall-off in the course of primary schooling presented one of the real basic problems of general education, and it was actually the reason of the under-implementation of the First Plan targets concerning primary education. Out of the total number of pupils and students there were only 23 per cent females. The number of teachers was in main sufficient, 7,195 teachers, instructors, and professors being employed in Ethiopia, of which there were 1,301 foreigners. The number of foreign teachers shows that the problem of educating the Ethiopian teaching staff is acute even in this present stage of the development of education.

36. In the course of the present years a systematic study of public health problems was carried out and programmes were designed. Provincial hospitals with a total of 600 beds have been constructed, as well as the Pediatric Hospital in Addis Ababa. With the view of decentralizing the health services, 50 health centres and 100 health stations have been established throughout the country. The number of hospital beds has been increased by 5 per cent, and the health stations

by 35 per cent. The personnel trained in the Gondar Public Health College and in other institutions entered the public health programme in the early part of the First Five Year Plan.

37. The Malaria Eradication Programme started at the beginning of the First Plan, both in its experimental and training aspects, and by the end of the Plan the programme has expanded to an organization of 335 regular employees, protecting about 10 per cent of the people exposed to malaria risk. Venereal disease control was continued throughout the period and campaigns carried out in four provinces treated 250,000 people. Tuberculosis Control was initiated, Leprosy Control extended throughout the country, and the Trachoma problem studied to gather the necessary information for future control measures. New programmes, such as Maternal and Child Welfare and Clinomobile Service, have also been started during the past period.

38. Community Development played an important part in the field of social progress in rural areas, although it is in its experimental stage. Conceived as a co-ordinated development of rural settlements this programme comprised agriculture, various local activities, water supply, the construction of local roads, health protection, education, etc. It is understandable that community development required material means and skilled personnel and it also presented a novelty in the organization of life in the Ethiopian village. It has been necessary, therefore, to carry on experiments in this field, in order to find adequate methods for the reconstruction of the village. In the framework of community development, in the planned period, fourteen centres together with about 70 branches have been opened in various parts of the country, and altogether they cover about 74 various activities. Trained personnel numbering about 300 are being employed in the community development centres.

Effects and Problems

39. The First Five Year Plan period was an important time in the economic and social development of Ethiopia. All sectors of the economy, as well as social services, have advanced during this period. The standard of living has been gradually improved, and the per capita consumption of basic commodities rose, thanks to growing domestic

production. Trade and commerce have been expanded, and have led to a further monetization of agriculture and other rural activities. The psychological effects of such a development are favourable, since people are getting more and more interested in general and regional development, as well as in the improvement of their own lives. By the end of the First Plan local initiative to erect new developmental projects had grown fast, indicating the readiness of the people to contribute to the development of the local community and of the whole country.

40. The acceleration of economic growth and of social services has, however, brought forth new problems, which in fact arise in all developing countries. Low saving capacity and inadequate methods of mobilizing savings required for an accelerated development were perhaps the most serious obstacle to faster growth. In addition, the investment structure, in which priority was given to infrastructure, was not such as to expand production to the extent needed. Under-fulfilment of the industrial programme had unfavourable consequences in agriculture, both in respect of demand for agricultural raw material and of the supply of improved tools and implements. The production of raw material, both of agricultural and mineral origin, lagged behind the growing demand of the newly established industries. Although balance of trade difficulties are to be expected in a growing economy, they have also contributed to the creation of new economic problems.

41. The changes in the economy and new economic problems were accompanied by other human factors and organizational problems. The lack of trained personnel and skilled workers is a well known characteristic of each developing country and the growing demand of the economy and social services for cadres and skill cannot be met by the existing educational system. In spite of all the efforts the Government has made to provide the young generation with sufficient and adequate training, either in the country or abroad. there has been a permanent shortage of technical, managerial and administrative staff. As a consequence, there were many shortcomings and bottlenecks which hindered the implementation of the Plan. The co-ordination of work among the various Ministries and Government Agencies was not always satisfactory. Inadequate economic legislation

and lack of information did not encourage the foreign investor to start new undertakings, while domestic initiative was handicapped by the shortage in managerial staff. The development and promotion agencies, which are a very important factor in developing countries, were not established in all fields of productive activities, so that the Government was not in a position to help the economy by its own organization to overcome the difficulties which have appeared.

42. The problems and difficulties already mentioned are of course a peculiar sign of growth, and stagnant societies are not faced with either economic problems arising from the changes in economy or with difficulties of institutional and human nature. In spite of them, the Ethiopian economy at the beginning of the Second Five Year Plan, is ready for further accelerated growth. National production and the investment-absorbing capacity of the economy is steadily growing. The economic activities already established call for further economic expansion and offer good opportunities for further agricultural and industrial growth. The Ethiopian technical and managerial staff, as well as farmers and workers, acquired experience during the First Plan period and will be able to assume larger production tasks and responsibility. Reforms to be carried out to improve the economic and social institutions have been carefully studied and will be implemented at the beginning of the Second Plan. All this, together with the growing desire of the people for progress and an increasing consciousness and responsibility, is a sound basis for accelerating development and multiplying efforts for the benefit of all.

Chapter 3.

LONG-TERM ECONOMIC DEVELOPMENT

1. The progress achieved over the First Five Year Plan brought into the economy new components which indicate the new tasks to be carried out in the course of the coming period. Economic and social life became more complicated and the relationship among various sectors more delicate. Simultaneously with the growth of economy and social services, new needs have been created so that the scope of development increased. Increasing needs are being faced with still limited human and material resources, emphasizing the ranking of priorities, and in such circumstances, planning for the Second Five Year Plan targets and resources had to be approached as a part of a long-term development programme, in order to assess properly the immediate and prospective targets, and to allocate the resources in an optimum manner.

2. In the framework of the preparation of the Second Five Year Plan two assessments of immediate and future needs and possibilities have been made. First, all the Ministries and Government Agencies have prepared their long-term development programmes aimed at extending and improving the economy, social services, public administration and other sectors. Sectorial programmes were actually the greatest possible development objectives to be considered in relation to the real human and economic potentials. Secondly, the Office of the Planning Board worked out a twenty-year development projection intended to forecast the growth of population, production and consumption, as well as the costs of the anticipated development. Its particular aim was to integrate the Second Five Year Plan development programme into the twenty-year period, so as to assess better the objectives and targets to be fulfilled during the Second Plan period, as well as to forecast the resources which will be available.

3. The time factor is a very crucial point in long-term and medium-term planning, since both objectives and resources have to be properly phased to maximize the benefits, while minimizing expenditures and effort. Long-term analyses made by the Office of the

Planning Board clearly showed that if a long-run economic and social progress were to be achieved, the Second Five Year Plan had to emphasize the development of the national economy, and especially of the directly productive sectors. Only by promoting the national production in the course of the next five-year period can additional incomes be generated, to be used not only for further economic expansion, but also to meet the needs of education, health protection, better public administration and other relevant services.

Growth and Structure of the Population

4. So far no population census has been carried out in Ethiopia, so that the present population estimates are based on the 1949 population count, two sample surveys, and estimates made for the First Five Year Plan. Due to the lack of vital statistics, the rate of growth of the population also had to be estimated by assuming that the improvement in public health will gradually reduce mortality, while some growth of fertility might be expected. According to the stated assumptions, the growth of population of the whole of Ethiopia has been forecast as follows:

GROWTH OF POPULATION, 1949 to 1974

Year	*Population in millions*	*Rate of growth*
1949	19.4+	—
1954	21.0	1.6
1959	22.9	1.8
1964	25.1	1.8
1969	27.3	2.0
1974	30.0	2.0

During the next five years the total increase in the population is estimated to reach nearly two million, while in 1974 the population will be about 9.0 million larger than in 1954. Such a rapid growth of population is encouraging, both from the point of view of the

+ This figure has been corrected in accordance with the latest estimates.

availability of the labour force and of the extension of the domestic market, particularly since Ethiopia is a sparsely settled country.

5. Along with the growth of the economy the economic structure of the population is expected gradually to change. At present the share of the agricultural population is estimated at 18.9 million or 90 per cent, but assuming a growth of the economy of about 5 per cent over the twenty-year period, which includes a much faster growth of industrial and nonagricultural employment, the share of the agricultural population might fall to about 72 per cent. It is expected that out of the total population increase of 9 million by 1974, 2.7 million will be added to the agricultural population, and 6.3 million to the nonagricultural. At the end of the twenty-year period, agricultural population may be forecast at 21.6 million, and nonagricultural at 8.4 million.

6. Simultaneously the urban population is also expected to grow. The present urban population is estimated at 1.5 million or 7.1 per cent of the total population. Assuming that the bulk of the increase of nonagricultural population will reside in urban areas, the 1974 urban population is forecast at 7.6 million, or 25 per cent of the total population. This means, inter alia, that the future economic and social development will have to provide additional housing and municipal services to meet the demand of the growing urban population.

7. According to the comparative analyses concerning the availability of natural, human, and financial resources, population together with agriculture seem to be the most abundant resource. It is actually the biggest national asset, and a great reserve to be mobilized for future economic and social development. Throughout the subsequent five-year plans financial resources are expected gradually to become more abundant. Mineral resources should also be utilized for the economic development, following the anticipated prospecting and opening of mines. The relationship between various resources in respect to their availability will therefore change in favour of capital and mineral resources. However, the population will still retain its position as an abunadnt factor due to its growth and to the large percentage of the agricultural population. This points to the need for an adequate labour policy, both with regard

to industrial employment and to a fuller utilization of agricultural labour. Intensive labour methods, especially in agriculture, rural housing, and local development projects, will have to be continuously promoted to provide the economy with additional labour, which is in fact the generator of wealth and income.

8. Since the population will be one of the most important factors in economic development, it should also receive better education, fuller health protection, and other essential facilities. Owing to the present level of the national per capita income and lack of trained personnel, the social services cannot grow in the beginning of the twenty-year period at the pace one might desire. In the coming period top priority should be given to the development of production, with a view to creating a sound material basis for speeding up and improving both the economy and the social services, but, in spite of limited resources, organized efforts have also to be made to extend better education to the young generation, to spread skill, and to introduce the new knowledge required to run a multiplied and diversified economy, as well as social affairs. Since the development of the economy and the introduction of modern technology will be faster than regular education, extraordinary methods should be introduced, such as in-service training, evening classes, etc. in addition to the established methods. The diversification of the economy and society will undoubtedly require and stimulate the growth of education, science, skill, and experience. The Nation must afford to progress in this respect: it should not wait only for Government action, but should assist all initiative and self-help intended to acquire better education and skill. This is actually an endeavour which will not only promote economic and social progress, but also change the quantitative characteristics of the population, which seems to be a very important factor in the future demographic trends.

Rate of Economic Growth

9. Both for internal and external reasons the Ethiopian economy can no longer sustain a slow rate of growth. If the level of living is to rise, if employment is to increase, if the consumption and social services are to grow, the rate of economic growth must be higher than

it was and must follow an accelerating trend. This is also necessary because Ethiopia's position in African and World affairs will become stronger as the national economy strengthens. To accelerate the rate of growth is therefore the basic national target, worth the Nation's efforts and sacrifices, particularly in the first stage of the coming twenty-year period.

10. The rate of growth of the economy for the next twenty-year period has therefore been estimated on average at 5 per cent, compared with 3.4 per cent during the First Five Year Plan, and it should rise to 4.3 per cent during the Second Plan and achieve about 5.8 per cent over the Fifth Plan period. This acceleration of growth is a realistic and feasible target, starting from the existing lower level, appreciating its present stage of economic development, as well as the institutional background, and rising gradually, following the changing structure and capacity of the economy. At the end of the twenty-year period the rate of economic growth should be such as to allow further speeding up of the economy, and of social and other services.

11. According to the expected rate of growth, the gross national product should double by the middle of the Fifth Five Year Plan. Estimates made by the Office of the Planning Board suggest that the gross national product should attain the following approximate amounts by the end of each consequent Five Year Plan:

Gross Domestic Product Estimated over the Twenty Year Period
(In Millions of Eth. $ 1953 prices)

End of Plan	*Gross Domestic Product*	*Index First Plan = 100*	*Rate of Growth*
First	2 130	100	3.4
Second	2 632	124	4.3
Third	3 310	155	4.7
Fourth	4 270	200	5.2
Fifth	5 650	265	5.8

12. In spite of an accelerated population growth, the national per capita product is expected to rise from Eth. $ 101 in 1954, to

Eth. $ 188 in 1974. The rate of growth of the per capita product for the twenty-year period has been estimated at 3.2 per cent per annum, which should be compared with the First Five Year Plan's rate of 1.8 per cent. Such a relative growth of the gross national product will allow not only an increase in consumption, both personal and general, but also an increase in domestic saving to be used for further financing of the national development.

Production Objectives

13. The twenty-year development programme envisages changing the Ethiopian economy from a backward and predominantly agricultural, to a modern and efficient agro-industrial one. Ethiopia abounds in agricultural wealth, rich soil, and very favourable climatic conditions which allow diversified agricultural production capable of supplying the less favoured world regions. Her contribution to the world exchange should therefore be in various agricultural commodities, properly processed and of a standard quality. Ethiopia's agricultural and animal husbandry raw-material basis demands the development of a strong processing industry, not only from the point of view of the national economy, but also with regard to international division of labour. With this in view, the long-term development programme should endeavour to extend the cultivable areas to promising valleys, to improve cattle raising, and to erect modern large-scale agricultural undertakings, and a processing industry based on the available raw materials of agricultural origin.

14. Due to the size of her population Ethiopia should construct all kinds of consumers' goods industries, intended to meet the growing domestic demand. It is to be expected that the internal market will rise both on account of the growth of population and of personal incomes. The changes in the economic structure of the population, as well as urbanization will create new needs and additional demands to be largely met by the domestic industry. It is a happy coincidence that both the standard of living and the industrial production are expected to rise simultaneously, so that each will encourage the other. As a consequence of industrial growth, urbanization and overall economic development will stimulate building and construction activity

which will require additional building materials to be produced by the domestic industry.

15. It has been estimated that the value of the total equipment to be installed in the new factories and to be provided for agriculture and other industries during the Second Plan will come to about Eth. $ 600 million. The value of equipment for the Fifth Five Year Plan is forecast at about Eth. $ 2,000 million, whereas the value of the equipment for subsequent plans will grow steadily. On account of its mineral wealth and abundant power resources, Ethiopia should be able to produce a large part of this equipment in domestic factories in the near future. The long-term development programme foresees, therefore, the erection of a machine-building industry, but in the following stages: studies and prospecting for metal ore and power which are to be completed in the beginning of the Second Plan; opening of mines and construction of the steel mill which is to be finished during the Second and at the beginning of the Third Plan; beginning a metal processing industry in the course of the Second Plan; production of machinery and equipment in the Third Five Year Plan. The development of steel, metal processing, machine building and electric industries will reduce heavy imports of equipment and will also strengthen the whole economy and contribute largely to National Defence and to the international economic position of the country.

16. Power and energy will be steadily of higher importance both for the economic developments and in the everyday life of the people. In 1954 not more than 145 million kWh of electric energy had been consumed, but the total requirement of electric power in 1974 has been estimated at 1,500 million kWh. In comparison with 6.9 kWh per capita consumption of energy of all types (except liquid fuel) in 1954, the per capita consumption of energy in 1974 is estimated at about 80 kWh. The increasing consumption of energy will be required by the new technology which is about to be introduced. It will largely contribute to the efficiency of labour, and help the efforts to be made for speeding up agricultural and industrial development.

17. The mineral wealth and energy supply will create a sound basis for the growth of the chemical industry. Modern industrial

development cannot neglect the chemical industry, so that even the Second Five Year Plan has made provision for industrial undertakings of this kind. Future agricultural production will require the production of fertilizers, insecticides, and other chemicals for crop protection while industrial and personal consumption will call for synthetics, plastics, and other chemicals as substitutes for the raw material lacking in this country, as well as for the production of new capital and consumers' goods.

18. Being internally consistent and interrelated, the expected development of agriculture, mining, power, manufacturing and construction, will create a mutual offer, demand, which is so much needed for successful economic growth. Moreover, the growth of directly productive industries will affect and promote the development of transport and communications as well as of trade and commerce and other services. The transport network should therefore be extended to link all the regions into an economic whole and to create the preconditions for establishing an integrated national market. In this respect railways will have to play an important role, so that the extension of the railway network should start in the course of the Third Plan, and continue on a more extensive basis in the second decade of the twenty-year period. Maritime transport which will have to carry a substantial part of the growing exports and imports should also develop rapidly, starting from the Second Five Year Plan period. Finally, the road network as well as the road transport should grow in proportion to provide transport facilities to the regions which cannot be served by the railway.

Changing Pattern of Technology

19. Obviously this growth of the economy cannot be expected on a traditional technology and equipment basis. The modern world has already been faced with two industrial revolutions, steam and electric power, and stands on the threshold of the atomic age. In the 19th and early 20th centuries Ethiopia had been passed by the great technologic changes which have completely transformed the patterns of production. She has now to catch up for the gap created by history and introduce contemporary techniques and methods. She has also to be

ready to enter, together with other nations, the new age which the world is now confronting.

20. The future economic development of this country will have to rely basically on modern techniques and equipment, which will call for large capital investment to be provided during the next twenty years. Since capital will not be an abundant factor of economic development, new techniques and modern machinery have to be introduced only when they are economically justified, bearing in mind the availability of other factors, especially labour. Parallel with the capital intensive schemes, the labour intensive ones have to be promoted also, due to the fact that population offers a large and promising labour force. Small improved tools and implements, bigger input of labour, better organization and managerial efficiency, together with conscious hard work, are also channels to progress. The five-year and annual development programme will have, therefore, to assess properly the proportions between the capital and labour intensive schemes, with the view to an optimum utilization of the labour force and capital investment.

21. The changing patterns of technology point to the importance of skill and applied science over the whole twenty-year period. National efforts should be made to introduce new techniques and methods and to train the population to utilize them adequately. Not only machinery and equipment but efficiency and intelligence of the labourers will speed up economic and technical progress. This is, indeed, a mutual process, in which new equipment encourages the skill, while skill adds to the efficiency of the equipment. However, this existing potential of progress should be promoted and organized by all the factors concerned: educational institutions, Government agencies, industrial and agricultural enterprises, and others. Particular attention should be devoted to applied research, both in natural, technical, and social sciences, for this is the only way to ensure future development in all fields.

Investment Requirement

22. Long-term development objectives in respect to the growth of production and consumption will require, above all, financial

resources. A realistic development programme ought to be backed by an appropriate financial scheme to assess the feasibility of financing and achieving the established targets. The long-term project worked out by the Office of the Planning Board estimates the total investment expenditure over the next twenty years at approximately Eth. $ 12,682 million.

Estimated Investment During the Twenty-year Period

(In Millions of Eth. $)

Five Year Plan	*Total Investment*	*As per cent of total*	*Index (First Plan = 100)*
Second	1 696	13.4	202
Third	2 420	19.1	288
Fourth	3 516	27.7	419
Fifth	5 050	39.8	601
Total	12 682	100	—

It should be pointed out that the investment requirements are estimated as growing steadily. During the Second Plan period investment is expected to be double that envisaged in the First Plan; this is necessary to accelerate the growth of the economy at the very beginning of the twenty-year period. Investment in the Fifth Plan is expected to be about six times that of the First Plan.

23. The financial scheme for the investment programme assumes: a) positive effects of economic growth with regard to extending the domestic saving capacity, which is the main source for financing the development programme; b) a peaceful era in world relations with a consequence of raising co-operation and responsibility of economically advanced nations in the progress of developing countries; c) a favourable internal and external economic situation and d) full co-operation between the Government and other factors involved in planning for economic and social development. In the hope that these favourable circumstances will exist, the total investment requirements might be covered by both domestic and foreign sources.

24. For the whole twenty-year period the share of domestic sources has been estimated at Eth. $ 8,450 million, or 67 per cent of

the total, and foreign sources at Eth. $ 4,220 million, or 33 per cent. It should be pointed out that the need for foreign resources might grow until the Fourth Plan period in spite of the increasing domestic funds for investment. However, starting from the Fifth Plan, the share of the necessary foreign resources will decrease, since the domestic saving potential will be such as to be able to cover approximately four fifths of the investment requirements.

25. The investment programme for the twenty-year period has been worked out by the Office of the Planning Board on the following economic considerations. First, the bulk of investment means has to be directed to productive sectors, which should in the shortest possible time generate additional incomes and savings. Secondly, the development of the infrastructure as a whole should be closely related to the growth of productive sectors, so as to derive the maximum economic results from the infrastructural investment. Thirdly, economic and social projects have to be properly phased and integrated in the development entities, with the view of maximizing the return. Fourthly, the capital or labour intensity of the project should be assessed according to the availability of both the capital and labour force, bearing in mind the growth of productivity in the national economy as a whole. Fifthly, economy in costs of development should be the guiding principle, particularly as far as building and construction are concerned. As a result, the average capital coefficient has been estimated at 3.60 for the whole period, allowing for its increase from 3.35 during the Second Plan to 3.70 in the Fifth Plan.

26. The implementation of the development programme will call for a firm Government policy concerning saving and consumption, and the full co-operation of the business community and the general public. The growth of domestic saving implicates the control of private and Government consumption, so that the current consumption can be partly postponed and transferred to productive investment. The saving income ratio should rise fast over the twenty-year period, while total consumption should be allowed to keep pace with population growth in addition to the improvement in the standard of living.

Second Plan — Next Phase in Long-term Development

27. The Second Five Year Plan period is the most crucial period of the long-term development programme with regard to its production targets, as well as to investment and organization. As a bridge linking the past period, which might be considered as the preparatory phase for a faster development with the future development stages, it should speed up the growth of economy so as to make possible the fulfilment of the long-term objectives. Many new economic and social undertakings will have to be created during the Second Plan to change the structure of the economy and to prepare it for the future tasks. The investment programme for the Second Plan has, therefore, to emphasize the most promising and most prospective projects, to provide not only immediate but also the long-term effects. A specific task of the Second Plan is to adjust the institutional framework, including the public administration and business organization, to a growing economy.

28. Within the next five-year period the first year will certainly be the most decisive one. The bulk of organizational work has to be accomplished in 1955 E.C., to avoid any kind of delay in the implementation of the development targets. The importance of reorganization cannot be over-emphasized, since it affects not only the various organization schemes, but also the mentality and motivation of the people. In addition, during the first year, saving capacity has to be increased by promoting private savings and increasing Government savings. Mobilization of domestic saving for development purposes should be backed by foreign financial arrangements to ensure sufficient foreign resources for the implementation of the programme.

Chapter 4

THE SECOND FIVE YEAR PLAN IN OUTLINE

1. The level of economic development achieved during the First Five Year Plan, as well as the place of the Second Five Year Plan within the framework of a long-term development programme, suggest that the most propulsive sectors in the coming period will be mining, manufacturing, and power. Agriculture will remain the leading economic activity and will give the largest contribution to the increase in national production, in spite of its moderate rate of growth. Other economic activities, particularly trade and commerce and transport and communications, should grow more slowly than the industrial sector, but they should provide sufficient facilities for increasing production. As to social services, their development should be much faster than in the previous period, but will not be in a position to meet all the growing requirements.

Development Targets

2. *Agriculture* as a whole is expected to keep its pace of growth faster than the growth of population in order to supply more food for domestic consumption, and more products for the processing industry and for export. The growth of agricultural production should also help to increase the level of living of the rural population and to bring progress to the countryside. As far as commodity sectors are concerned the following targets are being set for the Second Five Year Plan period:

(*a*) to increase the production of cereals to 5,402,000 tons in 1959, to provide sufficient cereals for domestic consumption, and to promote the expansion of export;

(*b*) to increase the production of cotton to 14,000 tons in 1959, and of coarse fibres to 9,000 tons, to supply the domestic industry with 58 per cent of cotton and 100 per cent of coarse fibres needed;

(*c*) to supply the meat industry with 600,000 to 700,000 head of cattle in 1959, mainly to be processed for export, but also for domestic consumption;

(*d*) to expand the production of traditional export commodities and to improve their quality; particularly to increase the quantity of coffee for export to 75,000 tons in 1959;

(*e*) with the view of improving the diet of the population to produce more vegetables, fruit, milk, eggs and other products.

3. To achieve the production targets foreseen for the Second Five Year Plan, both the subsistence and monetary sectors of agriculture should be encouraged and developed. Important improvement can be brought into the subsistence sector by introducing improved tools and implements, modern techniques, and better seeds. The Government's policy concerning credits, prices, and taxation, as well as land reform and agricultural services, should create a sound economic climate in which farmers will be encouraged to invest and increase production. Farmers should be assisted to produce more marketable surpluses, so as to continue to develop the subsistence sector of the agriculture into a monetary one. However, the production targets in respect to industrial crops and livestock cannot be fulfilled by the subsistence sector only. Large-scale and mechanized agricultural undertakings have to be established by private concerns, Government, and co-operative initiative. The establishment of large undertakings coincides with the settlement programme; it is the most appropriate and the most efficient means of bringing the virgin land to cultivation and of increasing the agricultural output.

4. *Mining.* — During the Second Five Year Plan surveying and prospecting for mineral wealth should be given the highest priority to ascertain the kind of minerals that are available, where the promising regions are, and what quantity and quality of mineral resources can be exploited at reasonable costs. The future industrial development largely depends on the utilization of minerals. Therefore, the Government will encourage the undertaking of prospecting work by private concerns, and will also assume responsibility for basic surveys and studies. The extraction and exploitation of minerals should receive more importance during the Second Five Year Plan. The exploitation of precious metal mines will be extended; new mines should also be opened both for supplying the domestic industry and for export.

5. *Power.* — Electric power will remain the most important source of energy during the next Five Year Plan. The construction of the electric power plants already started will be continued and new ones will be erected with the aim of increasing the productive capacity of the power plants to 355 million kWh in 1959. Surveys have to be undertaken to facilitate the implementation of the long-term programme. In addition, the Assab Oil Refinery should be completed during the Second Plan with a final capacity of 500,000 tons of crude oil. During the coming period efforts should be made to extend the bases of the power generating system to new sources, such as domestic crude oil, coal, solar energy, and others in order to improve the energy balance of the country.

6. *Manufacturing Industry* should aim at a better utilization of the existing agricultural wealth, particularly livestock, oil seeds, fibres, etc. The processing industry should, in fact, assist the development of agriculture by increasing the demand for raw materials of agricultural origin and by supplying agriculture with improved tools and implements. The agro-industrial complex is an important part of the Second Five Year Plan aimed at utilizing the already existing wealth for development purposes, at promoting exports and increasing the domestic saving capacity. In addition to the agricultural processing industry, the industrial programme for the Second Five Year Plan anticipates the construction of other manufacturing industries, such as the consumers' goods industry, the building material industry, and others intended to meet the increasing needs of the population and of economic development. The implementation of the industrial programme should also improve the foreign trade balance by replacing the importation of consumers' goods and by additional industrial exports.

7. Conceived as the initial phase of the twenty-year development programme, the Second Five Year Plan has to create the preconditions for faster industrialization. With this in view, the Second Plan industrial programme envisages preparatory work and construction of the iron and steel combination which is to be erected in the country. The combination will consist of iron mines, power plants and iron and steel works, with a final capacity of 80,000 tons of steel

per annum. Steel production is anticipated for the beginning of the Third Five Year Plan, so that the newly established metal processing industry will be supplied with raw materials, partly by the Akaki Steel Plant and partly from imports. Meanwhile, prospecting for iron ore and coal in other promising regions is also foreseen by the Second Plan in order to find out the possibilities of erecting new steel plants to supply other regions of the country. The building up of the chemical industry which is to be started during the Second Plan is also of a long-term development nature. Based on mineral raw materials and wood, as well as on the by-products of the oil-refinery, the chemical industry will have to play an important role in overall economic development. It should be pointed out that the steel, metal processing, and chemical industries are being envisaged on a moderate-scale basis. This seems to be necessary to fit the new industries into the framework of the overall industrial growth, and also to acquire the experience and knowledge needed for the future large-scale industry based on modern technology.

8. *Building and Construction* is estimated to grow rapidly during the Second Five Year Plan due to the new industrial, agricultural, and transport projects which are to be constructed, as well as to the expansion of housing. Since building absorbs 30 to 40 per cent of the total investment expenditure, economy in costs has to be realized by proper designing, better organization, and higher efficiency. With this in view, the Government will make rules and regulations concerning the designing and execution of the work. Supervision and control of quality will be extended and strengthened by the competent Government Authority to secure the safety of structures. Domestic building and construction firms, as well as designing and consulting firms, should be established to contribute to the implementation of the investment programme and to the stability of the building market.

9. *Transport and Communications* are expected to meet the increasing demand for their respective services, arising from the growth of the economy. The road network has to be extended by 1,300 km. of highways and 1,000 km. of feeder roads. With the aim of improving road transport, new public enterprises will be established, both for passenger and for cargo transport. Additions and improvements in the

existing railway capacities are expected, while surveys and plans will be made for the future construction of the Awash-Tendaho-Assab, Nazareth-Dilla (Sidamo) and Agordat-Tesseney- Sudan border railways. In addition to the already contracted arrangements concerning international air transport, the internal air communications have to be improved by acquiring additional aircraft. The port of Assab will be completed with equipment and services, and a national shipping company will be established as a nucleus of the future Ethiopian commercial fleet. Postal services should be expanded and improved, as well as telecommunications, which should link new regions of the country. With the view to co-ordinating all kinds of transport and communications a specialized Government department will be established, while the operational work will be performed by autonomous public agencies.

10. *Trade and Commerce* will have to follow growing production and ensure a better exchange of commodities among various regions. Foreign trade should increase nearly twofold by the end of the Second Five Year Plan: imports should rise to Eth. $419 million and exports to Eth. $327 million in 1959. The Government will encourage the import of equipment and goods in process by an adequate foreign trade policy to facilitate the implementation of the investment programme. On the other hand, imports of consumers' goods will be kept under control, to avoid the imports of nonessential goods. Exports of traditional export commodities, as well as of processed and semi-processed goods to be supplied by newly established industries, will be promoted by the Government through appropriate measures. The Coffee Board. Grain Corporation. and other trade promoting agencies will improve marketing, and provide storage facilities. As far as catering is concerned, additional hotels and restaurants are expected to be built because both foreign and domestic tourism is expected to expand.

11. *Education.*— The educational programme should be extended with the aim of providing the population with elementary education and to train the necessary technical personnel and skilled workers for economic and social development. As far as elementary education is concerned, the proportion of enrolment in the age group 6 to 11 should increase from 5 to 15-18 per cent, and fuller attendance in the

higher classes of the primary schools should be insisted upon. The local communities should participate in meeting education expenditure, particularly for buildings and equipment of the primary schools. The Government will ensure a uniform programme for primary schools, as well as for teacher training and supervision. During the Second Five Year Plan more attention should be given to secondary technical education, particularly to the Special Technical Schools. Vocational training should be encouraged not only by regular education. but also through evening classes and on-the-spot training.

12. The fulfilment of the long-term development programme depends greatly on the availability of the technical personnel. both of secondary school and university level. The development projects envisaged by the Second Plan, as well as social services and public administration, will need to employ about 1.500 college and university graduates. The University has to make efforts to contribute to the education of the necessary personnel, and to establish new colleges such as engineering, technology, medical colleges, and others. The scholarship programme or education abroad should be co-ordinated with the University programme. and both of them with the Second Plan requirements.

13. *Public Health* services should be extended and gradually decentralized through Provincial Public Health Departments, health centres, health stations, and provincial hospitals, with the view of meeting the growing needs of the population. Prevention of disease should be more emphasized during the Second Five Year Plan by establishing decentralized general health services. The Government will supervise and co-ordinate both the private and Government supported health activities, ensure uniform standardization of health services, endeavour properly to distribute the health institutions with the aim of avoiding duplication and achieving facilities for health personnel training programmes, particularly to meet the needs of the local health centres and clinics.

14. The Malaria Eradication Project which envisages an operational period of about 10 years, should be widely implemented during the coming five years. The experience already gained should be extended and improved so as to achieve and maintain efficiency. Other

specific projects which have been started during the past period, such as yellow-fever vaccination, the anti-syphilis campaign, the struggle against active tuberculosis, the leprosy control programme, control measures concerning trachoma and communicable eye diseases, etc. will be continued and improved during the Second Five Year Plan period. With a view to reducing the communicable diseases, both the preventive measures which are to be mainly a function of the health centres, and the vaccination programme, will be improved. The final goal of the public health services is to improve the health of the Nation and to reduce mortality. Due to the extent of infant mortality, efforts should be made to reduce it to a reasonable level by promoting both pre-natal and post-natal care by the most appropriate methods.

15. *Social Progress.*— Along with the economic growth and in conformity with the increasing resources, other social services and development schemes will be launched and extended. The Government will pay due attention to the Community Development Programme, with the aim of improving the social conditions of the rural community and of encouraging local initiative and self-help. The Public Servant Pension Scheme will be implemented in the beginning of the Second Plan period, and social insurance schemes encouraged for the benefit of other sections of urban population. Improvements should be made both in urban and rural housing conditions by the technical assistance of the Government, and by up-to-date regulations. Projects concerning protection of handicapped and disabled people will be initiated by close co-operation of the Government humanitarian institutions, and by local initiative. It is to be expected that the economic development will change the traditional pattern of life by increasing the standard of living, offering more employment opportunities and through the changing social structure. The Government will encourage the overall social development not only by direct action and assistance, but also by making appropriate rules and regulations.

Gross National Product

16. In the course of the elaboration of the Second Five Year Plan, the Office of the Planning Board has estimated the 1949 and

1954 Gross National Product and forecast the Gross National Product for 1959, all in 1953 prices. When working out the estimates the Office has been faced with enormous difficulties due to the lack of reliable statistics. Statistics are lacking for many sectors, e.g. for agriculture, domestic trade, catering, so that the Office had to use indirect methods to estimate the contribution of the sectors concerned to national production. When estimating the gross national product both the monetary and nonmonetary sectors had been taken into account. In this way the gross national product is estimated over all kinds and all types of economic activity, including, of course, the nonmonetary economy such as agricultural production intended for personal consumption of the farmers, etc. The 1959 gross national product had been forecast starting from the 1954 estimate by integrating all production and investment programmes into one consistent whole.

17. The implementation of the Second Five Year Plan, according to the Planning Office estimates, will result in a growth of the gross domestic product from Eth. $2,130 million in 1954, to Eth. $2,632 million in 1959. The average rate of growth of domestic economy is estimated at 4.3 per cent per annum. The gross national product, which includes the economic relations with the rest of the world, is also estimated to increase from Eth. $2,166 million in 1954, to Eth. $2,718 million in 1959, at an average rate of 4.6 per cent per annum. National per capita gross product accordingly will increase from Eth. $103 to Eth. $119, at a rate of growth of 2.8 per cent per annum.

18. According to the priorities adopted for the Second Five Year Plan, the growth of the various sectors of economy, and of social services, has been estimated as follows:

Gross National Product 1949 - 1959

(In Millions of Eth. $; 1953 prices)

	1949	1954	1959	Index (1954=100)	Rate of Growth
Agriculture	1 328.0	1 453.6	1 632.3	112	2.3
Forestry	18.3	23.3	28.1	121	3.8
Fishing & Hunting	1.1	1.8	2.9	161	10.1
Mining	1.0	1.4	11.6	829	52.6
Power	4.4	7.5	18.2	243	19.4
Manufacturing	24.7	34.9	116.7	334	27.3
Handicrafts & Cottage Ind.	60.9	77.0	93.1	121	3.9
Building & Construction	24.2	44.5	72.4	163	10.2
Transport & Communications	69.7	109.3	151.1	138	6.7
Trade & Commerce	110.3	136.1	171.1	126	4.7
Catering & Tourism	20.8	25.0	33.2	133	5.8
Financial Intermediaries	10.5	15.4	26.6	173	11.6
Education & Culture	11.2	28.0	48.0	171	11.3
Health	6.0	14.0	22.5	161	10.0
Community Development	—	0.9	7.4	822	42.8
Other Services	2.3	4.9	6.0	123	4.1
Government	63.3	95.4	119.4	128	4.6
Housing	19.6	25.8	35.4	137	6.5
Others	26.0	31.6	36.0	114	2.6
Gross Domestic Product	1 802.3	2 130.4	2 632.0	123	4.3
Rest of the World	— 30.1	+ 35.4	+ 85.5	—	—
Gross National Product	1 770.2	2 165.8	2 717.5	125	4.6

19. It should be noted that the fastest rate of growth is anticipated for the sectors which form the industrial groups in the broad sense, and which are actually the most propulsive ones. A high rate of growth is also forecast for building and construction due to their role in the implementation of the investment programme. As far as rate of growth is concerned, high priority is attributed to the social and economic services which have to assist the long-range development. In spite of the slow pace of growth of agriculture, which is a

consequence of the prevailing subsistence sector, its contribution to the gross domestic product is the biggest; agriculture is expected to contribute one third of the five-year national product increment.

20. The development forseen by the Second Five Year Plan should bring further changes into the structure of the national economy. This is, in fact, along the lines of gradually transferring the Ethiopian economy from an agricultural to an agro-industrial one. In the course of the Second Plan the relative share of the nonagricultural sectors will have to increase, while the relative share of the agricultural and other primary sector industries (forestry, fishing and hunting) must decrease.

Gross Domestic Product 1949 - 1959
Percentage Share of the Main Sectors

Sector	1949	1954	1959
Primary	74.7	69.6	63.2
Secondary	6.4	7.7	11.8
Tertiary - economic	11.7	13.4	14.6
Tertiary - noneconomic	3.6	4.9	5.9
Government	3.6	4.4	4.5
All Sectors	100.0	100.0	100.0

The changes in the composition of the gross national product anticipated by the Plan are the outcome of fastest growth of the secondary sector, which, with its 88 per cent increase over the next five years exceeds the growth of the tertiary sectors (34 and 47 per cent), of the Government (23 per cent), as well as of the primary sector (12 per cent).

21. The distribution of the gross national product is expected to change over the next five years in favour of capital formation, both private and public, as well as in favour of increase in stocks.

Distribution of the Gross National Product 1954-1959

	Millions of E.$ 1954	Millions of E.$ 1959	Percentage 1954	Percentage 1959	Rate of growth
Private Consumption Expenditure	1 750.9	2 056.8	80.6	75.6	3.3
Government Consumption Expenditure	181.0	259.7	8.4	9.6	7.5
Gross Fixed Capital Formation of Private Enterprises	154.1*	248.0	7.1	9.1	9.8
Gross Fixed Capital Formation of Govern. & Public Enterpr.	73.2*	138.0	3.4	5.1	13.5
Increase in Stocks	6.6	15.0	0.3	0.6	17.8
Total	2 165.8	2 717.5	100.0	100.0	4.6

The relative growth of the capital formation is undoubtedly a good indicator of the economic development. As concerns the public and private capital formation, it should be pointed out that the increase in public capital assets will be smaller by about Eth. $ 50 million, as the Government is expected to sell public enterprise shares to that amount. Private capital formation should in fact be increased accordingly. Although the rate of growth of private consumption expenditure is estimated to be the lowest, it will provide for both the increase in consumption due to the growth of population, and for improvement in the standard of living.

22. To summarize, it must be pointed out that the implementation of the Second Five Year Plan should bring improvement into the Nation's economic and social life in all respects. Economic activity as a whole, as well as all industries and social services, will grow and diversify. The rate of growth of all industries and social services over the next five-year period will be higher than during any other period in the past. Per capita production will be bigger than ever at the end of the Second Plan, allowing for larger consumption and larger saving. The development trend which began in the course of the First Five Year Plan will continue and will be accelerated. Further changes in the structure of the national economy will occur;

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* Including savings and depreciations carried over from 1953.

changes which are not only a sign of progress, but a sound foundation for future development. When properly implemented in its main targets, the Second Five Year Plan's economic development will create better conditions for future growth, as well as for the fulfilment of the long-range development programme.

Investment Requirement

23. The implementation of the Second Five Year Plan will require additional labour force and equipment. It is true that the existing productive capacities might be much better utilized through a higher labour efficiency and a proper organization, resulting in incremental production of goods and particularly services. However, considerable addition to production, as anticipated by the Plan, cannot be achieved without further capital investment and employment, nor can the long-range development be ensured. Only the introduction of new equipment and additional skilled labour will be able to increase production and change the traditional pattern of the economy.

24. It is an important feature of the Second Plan's investment programme that it should not only simply add to the existing traditional productive means. The investment programme aims at changing the present pattern of technology and economy and at introducing modern equipment, which should contribute to the productivity of human labour and provide the Nation with more goods and services. In fact, the investment programme designed in the framework of the Second Five Year Plan should extend, on a large scale, the utilization of contemporary technology in all the propulsive sectors. Obviously, the development programme cannot neglect the improvement in the traditional methods of production, especially with regards to the immense subsistence sector of agriculture, handicrafts, small-scale industry and various services, but here the programme will be mainly faced with the human factor. As far as equipment for propulsive sectors is concerned, the programme should endeavour to introduce modern equipment, with the aim of improving both the methods and techniques of production.

25. Technical aspects of the investment programme emphasize the importance of its fulfilment. Out of the total investment in economic sectors in value terms, more than two thirds are intended to

intensify the technical progress in the propulsive industries, whereas only one sixth is intended to improve traditional technology, and one sixth to enable trade and commerce and similar services to keep pace with the growing economy. In terms of productive power, efficiency, and production, the progress of technology is perhaps even more significant, due to combined direct and indirect effects of the industrialization and modernization of agriculture and other sectors. Finally, technical progress will undoubtedly have valuable influence on the labour force, which will have to adjust itself of the new techniques and abandon the traditional ones.

26. Emphasizing the technical progress is not only due to long-term considerations, but is largely conditioned by directions of the economic development. Industrial branches, such as cement, iron and steel, glass, chemical industry, etc., have to follow the capital intensive pattern of technology, because the previous labour-intensive methods no longer exist. The same is true for the exploitation of the mineral wealth, which is expected to be an important activity. Meat processing and other industries intended for export have to be properly equipped to be able to compete on the foreign market and also to produce goods of standard quality which would be acceptable and reasonably priced. Finally, if the existing virgin land is to be brought under cultivation in a short time and with sufficient efficiency, modern methods will have to be introduced.

27. Technical progress of the propulsive sectors will not clash with the labour-intensive schemes which are to be implemented in the other sectors. Population pressure does not exist in this country, therefore the transfer of the labour force from agriculture to nonagricultural industries is not the most urgent problem. Consequently, the labour-intensive investment scheme does not have to be implemented at any cost and by neglecting the technical progress and propulsive sectors. Labour-intensive schemes will have sufficient place in the rest of the economy. Not only in subsistence agriculture, handicrafts, trade, and small-scale industry, but also in road construction, building of residential structures, and other activities where labour can be more economically utilized than equipment, labour-intensive schemes must be insisted upon. Even in the modern industries always when

the nature of works permits it. locally available labour has to be used instead of machinery.

28. *Total Investment* anticipated for the Second Five Year Plan amounts to Eth. $ 1,696 million. It is exactly double the actual investment during the First Five Year Plan extended period. The average annual investment envisaged for the Second Plan works out at about Eth. $ 339 million, while the First Plan's annual investment was about Eth. $ 153 million. The anticipated average annual investment of the Second Plan is 2.2 times greater than that of the First Plan. The Second Plan's investment programme counts on Eth. $ 1,451 million of monetary investment and Eth. $ 245 million (about 14 per cent) of investment in kind. This points to the importance which is given by the Second Plan to the labour-intensive methods as far as the investment programme is concerned.

29. Out of the total investment, Eth. $ 1,262 million (about three fourths of the total) should be assigned to the productive sectors and other economic activities, Eth. $ 394 million should be allotted to the social and other services, and Eth. $ 40 million should be kept as an investment reserve. The structure of investment targets is intended to provide the economic sectors with sufficient money since they have to carry the greatest burden in the implementation of the Second Plan production targets.

Financing the Development

30. In addition to the investment requirement, the financial scheme for the Second Five Year Plan has to provide necessary means for financing the social services and various development programmes, as well as the public administration. In addition to Eth. $ 1,451 million for monetary investment, financial means amounting to Eth. $ 1,100 million for recurrent expenditure on social services, economic services, and public administration, and Eth. $ 95 million for foreign debt repayment and Eth. $ 10 million for others, are estimated for the Second Five Year Plan period. Thus, excluding the running costs of economy, total development and administration expenditures during the Second Five Year Plan period are estimated at Eth. $ 2,656 million.

31. In the total amount of money to be expended over the Second Five Year Plan period, domestic sources are expected to participate with a sum of Eth. $ 2,017 million, or with 76 per cent of the total expenditure, while foreign sources are expected to participate with Eth. $ 639 million, bearing 24 per cent of the planned expenditure. Thus the burden which the national economy has to carry in order to reach the planned goals is more than considerable. It calls for extraordinary efforts of the whole Nation, and requires sound economy in spending.

Labour Force and Employment

32. In an expanding economy, such as the Ethiopian, the labour force is of increasing importance. Due to the growth of population during the Second Five Year Plan there will be enough labour to meet the needs of the economy. However, the composition and skill of the labour force is not in conformity with the requirements of industry and other nonagricultural activities. Thus, although the labour force is abundant skill is very scarce. The educational system which, in spite of considerable improvement is still inadequate, is expected only partly to meet the requirements of the economy.

All this points to the urgency of establishing a national labour training programme, which will combine both the regular and extraordinary training schemes to be launched to meet the growing demand of the economy and social services.

33. Two different main problems in respect to the labour force and employment have to be distinguished. The first concerns non-agricultural employment, particularly that in the organized sector of the economy and in social services. The other is related to the subsistence part of agriculture, as well as to the unorganized sector. Owing to the lack of statistics, both problems could not be sufficiently analysed to allocate properly the Second Five Year Plan targets concerning labour force and employment.

34. *Organized Sector.* — Considering its production targets and type of equipment, the organized sector of economy should employ, primarily, skilled operatives as well as an additional technical, administrative, and clerical staff of University and secondary school education level. Total employment in the organized sector including the

large-scale agricultural farms, mining, electricity, manufacturing, financial institutions and others — should increase from 36,000 persons in 1954, to 75,000 in 1959. The technical and administrative personnel increase is estimated at 690 persons with college or university degrees, and 3,000 persons with secondary technical school diplomas. In addition to the requirements of the economic sector, the social services will employ, in 1959, about 450 more college and university graduates and 3,500 secondary school graduates, while public administration will employ respectively 350 and 2,100 persons. The total increment in technical and administrative personnel comes to about 1,500 college and university graduates and 8,600 secondary school graduates. The requirements of the organized sector for technical and administrative personnel will be difficult to meet and substitute personnel should therefore be trained to replace the graduates who are needed but not available.

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35. Employment projection concerning the operations in the organized sector predicts an increment of 33,000 people. In total there will be an additional demand over the next five years for 2,700 skilled operatives, 29,500 unskilled operatives, and 900 supervisors and foremen. They will have to be trained either in vocational schools or by other methods, such as on-the-spot training, evening courses, etc. In view of the shortage in educational and training facilities, it is to be expected that the existing enterprises, Government Agencies, as well as the prospective investors, will assist in the training of the technical personnel and operatives. With a view to avoiding the shortage in skilled labour, as well as an unjustified increase in wages and salaries, the Government will encourage any kind of vocational and out-of-door training by the most appropriate methods.

36. *Unorganized Sector.* — The growth of employment in the unorganized sector, whether of a family type or of a wage-earner type, is expected to be much faster due to the growth of populaton. To increase the labour efficiency in this sector, no educational and training facilities will be available, except the primary and secondary schools which will have to promote practical and comprehensive education. Therefore, other training methods should be introduced and extended in conformity with the needs of the urban and rural economy.

37. New entrants in the urban economy should be given the opportunity to take part in apprenticeship schemes which should be extended through all the handicrafts and arts as well as through trade and commerce. Such schemes should be linked with vocational education and evening classes, which are to be introduced into the urban localities within the existing secondary or vocational schools. In-service training should also be recommended to train in various jobs the adults already employed. The Chamber of Commerce is expected to organize professional courses in bookkeeping, accounting, and similar subjects required primarily by private small and medium-scale business.

38. It is of paramount importance to introduce new methods and techniques in farming and animal husbandry. Through its competent agencies the Government will extend appropriate schemes to expand know-how and will provide more efficient tools and implements. Primary education will also have to support the endeavours to raise labour efficiency by contributing to general education and literacy and by demonstrating new methods and techniques. All this should result in an increase in labour input, in upgrading agricultural work, and in raising the labour productivity.

39. *Voluntary Labour Campaigns.* — The introduction of new methods and techniques will gradually reduce the wastage of labour. However, the labour surplus in agriculture is such that it will be diminished only after transferring a large segment of the present agricultural population into nonagricultural activities. This is, indeed, a long-term process so that the Second Five Year Plan will have to count on idle hands in the countryside being used for development works. Besides the housing and feeder road schemes, for which privisions have been made in the investment programme, other voluntary labour campaigns should be launched, particularly to improve the local water supply, drainage, local markets, etc. National Community Development is considered the most adequate organization to

mobilize the local labour force for such projects, and it has therefore to proceed with very different labour-intensive development projects. The psychological effects of the labour campaigns should also contribute to the national development because people will become more aware that improvement can come only by additional labour and efforts.

Consumption and Standard of Living

40. Whereas the gross national product is expected to increase at 4.6 per cent per annum, private consumption should increase at 3.3 per cent. The rate of growth of consumption anticipated for the Second Five Year Plan period is, in fact, the consequence of the policy of an accelerated growth of the economy: if investment should be larger to ensure the rise of production within the given growth of the national production, the increase in consumption should be relatively slower. This policy which by its nature is a long-term one will allow also for an increase in personal consumption, even in the course of the Second Five Year Plan period. Per capita consumption is expected to rise from Eth. $ 83 in 1954, to Eth. $ 89 in 1959, or at a rate of 1.5 per cent, which is, in the present economic conditions, a good progress.

41. *Increase in the Standard of Living.* — The growth of personal consumption forecast for the Second Plan will not only expand the present volume of consumption, but should also bring about a diversification of the consumption pattern, which arises from the changing wants of the population. Considering the level of national per capita income, the calorific value of nutrition seems to be quite high, and the calory intake per day is not expected to grow fast: it should increase from about 2,170 calories in 1954, to about 2,210 calories per capita daily in 1959, which level is higher than in many other developing countries. Accordingly no increase in the consumption of the staple food, cereals, is envisaged.

Estimated Per Capita Consumption 1949 - 1959

Item	*Unit*	1949	1954	1959	*Index* (1954=100)
Cereals	kg.	183.0	184.0	185.2	100
Meat	kg.	15.5	16.0	17.0	106
Sugar	kg.	1.0	1.8	2.3	128
Cotton Textiles	m2	1.4	2.3	4.3	188
Footwear	pair	0.2	0.3	0.5	166
Electric Power	kWh	3.7	6.9	15.5	225
Cement	kg.	1.8	2.5	4.5	180

Other consumption items, particularly clothing and footwear, are on the other hand expected to be consumed in much larger quantities. The change of the consumption pattern is a very encouraging sign of improvement in the standard of living. It is true that the present standard of living of the largest part of the population is low, though its nutrition intake is moderately good. The basic wants are far from being satisfied, so that any kind of per capita improvement has a great significance.

42. It should be noticed that the highest growth of consumption is anticipated for the manufactured consumers' goods — which were previously not available on the domestic market, or not in sufficient quantities. Thus, industrial development will contribute to the improvement of the standard of living even in the coming period, and will do so much more in the course of the subsequent five-year plans. Due to the prevailing low standard of living, the Second Five Year Plan does not provide for a large increase in the consumption of durable goods. Durable goods such as furniture, radio sets, household textiles, bicycles and vehicles, and others are still in limited use in rural areas and the quantities needed will be either produced on a small-scale basis or imported to meet the urban demand. In any case, the consumption of durables has not been estimated to have an

important growth in the framework of the standard of living over the next period.

43. *Housing Conditions.* — Investment requirements for housing over the Second Five Year Plan have already been discussed. Here it should be pointed out that housing conditions, which form a very important part of living conditions, should be improved in the course of the coming period, both in urban and rural areas. In spite of the moderate standards which are recommended, housing facilities should be improved for a large segment of urban and rural population. New buildings should be constructed, improvement in the functional distribution of space should be achieved, particularly in the rural areas, and low-cost housing should be provided. Introduction of better household equipment and furniture in rural areas has also to be encouraged through the National Community Development scheme.

44. *Social Services and Standard of Living.* — The standard of living should be improved by the extension of social services, in particular public health, education, and social security programmes. Of course, social services are not to be considered as personal consumption, but since they contribute in various ways to better living they should be seen as a part of general consumption which is an important component of the standard of living. The growing demand for new schools, health centres and other social services, especially in the areas which have already been influenced by progress, coincides with the intention of the Government to extend social services. Their growth, as anticipated by the Plan, is much faster than the growth of personal consumption, because they are lagging behind consumption, while the national progress calls for their fast improvement.

45. *Standard of Living Expenditure.* — It is difficult to estimate the improvement in the standard of living, particularly since statistical data are lacking. Being a very important factor and the major objective of economic and social development, the standard of living and its growth should be estimated, even by an approximate method.

Estimated Expenditure on Standard of Living 1954-1959

Expenditure on	Millions of Eth.$ 1954	 1959	Index (1954=100)	Rate of Growth
Recurrent Expenditure				
Private Consumption	1 750.9	2 056.8	117.5	3.3
Pension Scheme Premiums	0.4	3.0	750.0	49.6
Total Personal Consumption	1 751.3	2 059.8	117.5	3.3
Public Health	18.9	35.5	188.0	13.4
Education & Culture	25.6	49.7	194.0	14.2
Community Development (50%)	0.7	4.0	570.0	41.7
Other Social Services	13.0	25.9	200.0	14.8
Total General Consumption	58.2	115.1	200.0	14.7
Total Recurrent Expenditure	1 809.5	2 174.9	120.0	3.5
Capital Expenditure				
Housing	45.0	60.0	133.0	5.9
Social Services	9.2	26.3	286.0	23.4
Total Capital Expenditure	54.2	86.3	159.0	9.7
GRAND TOTAL	1 863.7	2 261.2	122.0	3.9

Taken as a whole, capital and recurrent expenditure, both of which contribute to the standard of living, should grow over the next five years at an average annual rate of 3.9 per cent. This should be compared with the 3.3 per cent rate of growth of personal consumption, the 14.7 per cent rate of growth of general consumption, and the 9.7 per cent rate of growth of investment influencing the living conditions.

46. The policy of the Second Five Year Plan emphasizes the significance of general consumption for obvious reasons. In the prevailing Ethiopian circumstances where there is no shortage of food and climatic conditions are favourable, but educational, health, and other social services are lacking, general consumption must be given priority. Such a policy is not only justified from the point of view of the overall national progress; it is also being supported by the desires of the population, particularly the rural people, who consider education and medical care as a sign of progress and a better future.

Phasing Programmes

47. Economic and social development is a continuous process in which each subsequent phase has to be supported by the achievement of the previous one. Only that kind of progress which arises from a sound foundation due to the previous development can be a basis for further progress. This is equally true for the economic undertakings and social services, as well as for the public administration. Moreover, the development of various sectors has to be mutually coordinated so that the growth of each sector can derive benefit from the development of all the other sectors involved. Economic and social development should therefore be synchronized and integrated, and the phasing of programmes and projects should be such as to maximize the results, with minimum costs and efforts.

48. When elaborating the sectorial projects for the Second Five Year Plan, efforts have been made to distribute properly the various development targets within the five-year period. Sectorial projects have been worked out year by year, and they form an important part of the Second Five Year Plan documentation. However, when integrating and balancing the sectorial projects, adjustment had necessarily to be made in order to rank the priorities and to allocate the resources. Many sectorial projects, particularly of social services and public administration had to be extended for two, three, or even more years with the view to ensuring the resources, and to synchronizing the sectorial development with the overall progress. Thus the adjusted sectorial projects have to be considered as the tentative time table of the Second Five Year Plan.

49. A five-year plan, being a medium-term and master plan, cannot foresee all the details needed for its day-to-day implementation. In addition, the five-year period might bring unforeseen events which might have an impact on the planned development and disturb the anticipated phasing. Therefore the annual plans and programmes have to reassess the economic and social situation, and to adjust the phasing of particular programmes and projects to the existing economic conditions. Indeed, the broad lines of succession established and stated in the Second Five Year Plan have to be followed when working out the annual plans, for the Plan is a whole, not only in respect to its targets, but also in respect to timing.

50. With the aim of deriving maximum benefits from a planned and sound social and economic development, phasing of various programmes and projects should be based on the following principles:

(*a*) the execution of each project should be started only after a careful analysis has been made of its economic justification, and all factors of production, such as raw material, power, labour force and others have been ensured;

(*b*) as far as the combined projects are concerned, which integrate single projects in different industries (such as agriculture and processing industries, mining, power and manufacturing industry, etc.), they have to be properly worked out in respect to the beginning and ending of each project, and co-ordinated so as to ensure the production of each project on time;

(*c*) it is particularly important that the phasing of projects should be co-ordinated with balancing of power and raw material, both domestic and imported;

(*d*) considering the scarcity of the financial resources, the phasing of programmes and projects should avoid great accumulation of construction in any given year, which might unbalance the financial programme; on the other hand, it is very important to ensure the inflow of financial resources, particularly the foreign ones, on time:

(*e*) due to the shortage of skilled labour and technical and managerial personnel, the labour programme should be co-ordinated with each development project, so as to have the necessary labour available at the end of construction;

(*f*) when working out the annual plans and programmes, priority should be given to the projects under construction, with a view to starting production at the earliest date possible.

51. All the Government Departments and Agencies will have to elaborate their five-year programmes into annual programmes, following the phasing given in the Second Five Year Plan and the criteria stated above. Private concerns are recommended to co-operate with the Government Departments concerned in establishing their own development programmes in order to avoid any unnecessary work and duplication. Through its Planning Agency the Government will co-ordinate the sectorial programmes in respect to time and targets,

according to the priorities set forth by the Plan. This should be the best method of establishing an optimum and properly timed programme for the successful implementation of the Second Five Year Plan targets.

Flexibility and Key Projects

52. The Second Five Year Plan is a national document which summarizes the national targets to be fulfilled during the next five years; it anticipates the progress to be brought into the Nation's life, and ranks the order of priority. As a policy document the Second Five Year Plan traces the broad lines of development, envisages the growth and structural changes, and allocates the necessary resources. It is a comprehensive document of the national development which should stimulate all the citizens to implement it. The Second Five Year Plan is by no means considered to be a rigid programme which prevents individual and group initiative; it is a flexible programme which should embrace all efforts and undertakings, private, public and co-operative, domestic, as well as foreign, for accelerating the economic growth and social progress of the country.

53. When working out the sectorial programme for the Second Five Year Plan broad consultations were made, with the aim of incorporating into the programme the development intentions of the business community, the local authorities and Government Agencies concerned. However, it might happen that a project included in the programme will not be accomplished due to unavoidable reasons, or that the institution of some other project might be proposed. As a flexible national programme the Second Five Year Plan should allow changes and improvements to be made, providing the basic balances of the Plan are not upset. All changes or improvements to be proposed should consider the balances which have been established for the coming period, particularly the foreign trade balance, the financial scheme for the Second Five Year Plan, the energy and raw material balances, and the skilled labour force balance.

54. Because of its flexibility, which provides sufficient space for further improvement in the programmes, the Second Year Plan can encourage the parties concerned to expand their activities even

above the targets which have been set forth. If capital and labour, as well as raw material and demand are present, no limits should be set to the extension of the economic activity. The Government Agencies concerned will have, therefore, to study all proposals dealing with new projects and undertakings.

55. However, there are some schemes and projects which by their nature carry the whole development programme, and therefore should not be changed or neglected. The Government will have to undertake all appropriate measures to implement the projects and schemes that are of key importance, with a view to facilitating the fulfilment of the Plan as a whole. Particular attention and care, both by the Government and the other factors involved, should be given to the following:

(*a*) to implement the financial scheme for the Second Five Year Plan, its private and public components, as well as domestic and foreign ones;

(*b*) to improve the land tenure system, implement the programme of the agricultural services and Community Development, and to extend the modern large-scale farming and animal husbandry;

(*c*) to implement the programme concerning the studies and prospecting for minerals, as well as the opening of new mines;

(*d*) to ensure sufficient electric power for the Second Plan period and its expansion in the future;

(*e*) to establish key projects in manufacturing industry, particularly the meat and other agricultural raw material processing industries, the building material industry, and the consumers' goods industries. Special attention should be given to the co-ordinated iron and steel industry, the oil refinery, and the metal processing industry;

(*f*) to fulfil the basic highway programme and feeder road programme; to complete the existing ports and to establish the nucleus of the Ethiopian commercial fleet;

(*g*) to increase exports, particularly of manufactured goods, as well as to ensure the import of capital goods and goods in process;

(*h*) to train the technical and managerial personnel, as well as the skilled operators needed for the implementation of the preceding programmes.

56. By stating these priorities the other programmes and schemes are by no means neglected. The programmes listed above are of capital importance, because they have to be implemented as a whole, while the other programmes are of more flexible nature. The Government, as well as the Government Agencies concerned, must insist on the implementation of all the programmes concerned, since only a co-ordinated socio-economic development can bring about the results expected from the fulfilment of the Second Five Year Plan.

Chapter 5

FINANCE

General Outline

1. The implementation of the development tasks of the Second Five Year Plan largely depends upon appropriate financial policies and the setting up of adequate and efficient financial organizations. These will have to provide all the sectors of the Nation's economic and social activity with the necessary amount of financial resources. The implementation of the tasks set by the Second Five Year Development Plan demands the allocation of Eth. $ 1,451 million for investment purposes and Eth. $ 1,205.3 million for recurrent costs of economic, social and administrative services. The sum total of these expenditures, which amounts to Eth. $ 2,656.3 million, undoubtedly is an obligation which requires great national sacrifice and determination.

Second Five Year Development Plan Financial Resources and Outlays

Source	Millions of Eth. $
A. *Domestic Sources*	
1. Depreciation & Profit	416.5
2. Budgetary Revenue	1 386.4
3. Bank Loans	199.8
4. Other Domestic Sources	15.1
Total:	2 017.8
B. *Foreign Sources*	
5. Public Loans	339.5
6. Private	177.2
7. Grants in Aid	121.8
Total:	638.5
GRAND TOTAL:	2 656.3

Expenditure	Millions of Eth. $
A. *Investments*	
1. Economic Activities	1 126.7
2. Services:	
a) Public Administration	28.5
b) Social Services	79.8
c) Economic Services	15.9
d) Housing and other	150.–
3. Contribution to Development Fund	10.0
4. Investment Reserve	40.0
Total:	1 451.0
B. *Recurrent Costs*	
5. Public Administration	627.3
6. Social Services	376.4
7. Economic Services	96.6
8. Debt Repayments	95.0
9. Budgetary Reserve	10.0
Total:	1 205.3
GRAND TOTAL:	2 656.3*

- **Investment in kind, amounting to Eth. $ 245 million (Eth. $ 125 million in Economic Activities and Eth. $ 120 million in Housing), are not included.**

2. The limitation of the financial resources of the Second Five Year Development Plan not only imposes an optimal allocation of resources but also a strict economy in spending. Consequently, the national financial system and particularly the Government financial institutions, have an important role to play:

(*a*) In increasing the saving capacity of the Nation;

(*b*) In providing the organizations for supplying the necessary financial means;

(*c*) In promoting investment in kind, and

(*d*) In creating sufficient reserves for the maintenance of a smooth and balanced development of the economy.

3. *Foreign Resources.* — Due to the magnitude of the development targets anticipated in the Second Five Year Plan, the financial scheme counts on an important inflow of foreign resources, both for capital investment and for financing recurrent expenditure of the social services. Economic Assistance in various forms, as well as the Grant-in-Aid Scheme, had an important impact on the recent development of Ethiopia. It is to be expected that foreign assistance will play the same, or even a bigger, role in the next planned period to facilitate the economic and social development of the country. In working out the foreign assistance programme for the Second Five Year Plan the following considerations have been followed broadly: (a) that economic development will be supported by economic assistance of friendly countries, in terms of long-range loans, direct private investment, technical assistance etc.; (b) that the development of social services will be assisted by grants from international agencies, friendly countries and other organizations, to meet a part of the investment and current expenditure.

4. Total foreign resource requirements for the next five-year period and their distribution are estimated as follows:

Investment in National Economy	Eth. $ 517 million
Investment in Services	„ 37 million
Recurrent Expenditures for Social Services	„ 85 million
Total Foreign Resource Requirements	„ 639 million

It should be pointed out that economic assistance, which must be on an accelerating scale, forms the greatest part of the required foreign resources. Public loans and private investment are estimated to be Eth. $ 517 million, or about 80 per cent, whereas grants-in-aid are Eth. $ 122 million, or only about 20 per cent. This provision points to the need for the country to finance the bulk of development expenditures by its own present and future financial means.

Government Expenditures

5. Ordinary revenue of the State over the next five years is estimated to be about Eth. $ 1,131 million and the special revenue Eth. $ 255 million, in total Eth. $ 1,386 million. The anticipated increase in State revenue counts on the growth of economic activity, higher efficiency of tax collecting agencies and improvement in the tax system. The expanded activity of the public sector is also considered as a growing source of State revenue.

Budgetary Revenue and Expenditure 1955-1959

Revenue	Millions of Eth. $	Expenditure	Millions of Eth. $
A. *Ordinary Revenue*		A. *Ordinary Expenditure*	
1. Direct Taxes	311.7	1. Public Administration	627.3
2. Indirect Taxes	98.3	2. Social Services	286.5
3. Customs Duties	321.7	3. Economic Services	86.8
4. Federal Taxes	313.3	4. Debt. Repayment	95.0
5. Earnings of Government Departments and Min.	51.2	5. Budgetary Reserve	10.0
6. Other Ordinary Revenue	35.2	*Total:*	1 105.6
Total:	1 131.5	B. *Capital Expenditure*	
B. *Special Revenue*		6. Public Administration	28.5
7. Revenue from State Property and Investments	196.2	7. Social Services	53.7
8. Sale of Govt. Bonds	50.0	8. Economic Services	1.4
9. Other Special Revenue	8.7	9. Investment in Economic Activities	197.2
Total:	254.9	*Total:*	280.8
GRAND TOTAL:	1 386.4	GRAND TOTAL:	1 386.4

The estimated State revenue is in fact the limit of State expenditure, and therefore of the expansion of the social and administrative services. The total financial obligations of the Budget envisaged by the financial scheme for the Second Five Year Plan period are Eth. $ 1,386.4 million. Out of this total, Eth. $ 731 million, or 53 per cent, are intended for development purposes, including the investment in the public sector as well as the capital and recurrent expenditure on social and economic services. The other Eth. $ 655 million, or 47 per cent, are intended to be used for public administration expenditure, both capital and recurrent.

6. Recurrent expenditure accounts for the greatest part of the total State expenditure. This fact emphasizes the importance of keeping it under control as well of following strictly the principle of economy in expenditure. Public administration and social and economic services will have to be run on the most economic lines with the view to utilizing the available financial resources in the most efficient manner.

State Recurrent Expenditure 1954 *and* 1959

Item	Millions of Eth. $ 1954	1959	Index (1954=100)	Rate of Growth
Social Services	42.2	70.2	166	10.4
Economic Services	13.0	23.2	178	12.3
Public Administration	116.8	137.3	118	3.3
Foreign Debt Repayment	9.0	25.0	278	22.7
Others	—	4.0	—	—
Total:	181.0	259.7	143	7.5

Due to the great need to improve the economic services, particularly the Veterinary Service, Agricultural Extension and others, as well as to maintain properly the increasing road network, economic services are expected to rise at a high rate. Social services, including education and public health, should have also a high rate of expansion. However, the public administration expenditure should increase at a slow rate; improvements in this field will be sought in better organization, adequate distribution of responsibilities, and higher efficiency of the public servants.

Investment

7. *Financial Sources for Investment.* — The total gross investment for the Second Five Year Plan is estimated at Eth. $ 1,696 million, consisting of net investment amounting to Eth. $ 1,456 million and depreciations to be used for investment of Eth. $ 240 million. The share of depreciation intended for investment is estimated at over 14 per cent of the total. It appears feasible to use such a large proportion of the depreciation fund, since the capital assets for many economic activities are new. Both public and private concerns are recommended to use new investment, or for additions and improvements to existing equipment, any surplus of the depreciation fund after normal maintenance costs have been met.

8. Two thirds of the gross investment funds are expected to be made available from domestic sources, while one third comes from foreign sources. However, the share of foreign sources in net monetary investment is estimated at 45 per cent. Such a high share is due to the need to ensure that capital goods imported will be mainly financed by foreign resources. Both the volume of domestic saving and future trends of export suggest such a policy for the Second Five Year Plan.

9. The distribution of the total gross investment by sources is anticipated as follows:

Profits and depreciation carried over from 1954 to be reinvested during the period	Eth. $	60 mill.
Budget	„	280 mill.
Investment in Kind	„	245 mill.
Bank Loans	„	200 mill.
Profits, depreciation, and other funds generated over the period and private savings to be used for investment	„	357 mill.
Total Domestic Sources	„	1 142 mill.
Foreign Sources	„	554 mill.
Total Gross Investment	Eth. $	1 696 mill.

Taking together the profits and depreciation carried over from 1954 and those generated over the period, as well as the private saving, the personal funds of the business community and private investors, the total is estimated at Eth. $ 417 million. This is, in fact, the second most important item among all the sources to be used for investment.

10. When evaluating the sources and directions of investment no advanced studies on saving propensity and investment preferences have been available. Banking, budgetary investment, and foreign loan statistics had to be used as the only source for estimating the future origin and use of savings. This is probably why the personal funds and private saving seem to be underestimated. Out of Eth. $ 417 million arising from this source, Eth. $ 120 million had been estimated for investment in housing, since housing was, and is still the most attractive field for small investors. Increase in stocks in trade and all other industries has been estimated at Eth. $ 65 million; this is actually the most common form of reinvestment of profits by businessmen. Electricity and Communications are also expected to reinvest the major part of their own fund, Eth. $ 37 million and Eth. $ 18 million respectively. The same has been forecast for railways, air transport, and some industrial and agricultural undertakings.

11. The use of budgetary resources for investment is estimated as follows: Eth. $ 83 million to be used for social services and public administration investment (out of which Eth. $ 29 million will be for public administration) and Eth. $ 197 million for economic activities. The increase in the Government's capital assets after 1959 will, however, be lower since public enterprise shares worth Eth. $ 50 million are expected to be sold to private concerns. The bulk of Government investment in economic activities is anticipated as follows: for agriculture Eth. $ 73 million, transport Eth. $ 53 million and manufacturing Eth. $ 47 million. In addition, the Government will invest

Eth. $ 6.7 million in mining, Eth. $ 4 million in construction, and small amounts in other sectors.

12. Bank loans have to play an important role in the implementation of the investment programme. During the past period the bulk of bank credits has been used for housing, but the Second Five Year Plan estimates that only Eth. $ 10 million should be granted for this purpose. The emphasis of the credit policy for the Second Plan is being laid on economic activities, and over 90 per cent of the total long-term credits should be given to the economic enterprises. Nearly half the bank credits (Eth. $ 95 mill.) should be used by domestic and foreign entrepreneurs, as well as by co-operative and public undertakings for the development of agriculture. Eth. $ 44 million are intended for industrial investment, and Eth. $ 23 million for transport. Bank loans to be used for investment in hotels and other catering undertakings are estimated at Eth. $ 7.5 millions, while Eth. $ 8.0 million will be for trade and commerce.

13. Although investment in kind may be used in many economic activities, the Second Five Year Plan anticipated that only subsistence agriculture, housing and (in part) feeder-road construction should depend on it. It is assumed that works worth Eth. $ 120 million will be carried out to build rural and some urban housing, while investments in kind in agriculture are estimated to be about Eth. $ 113 million, and in feeder roads Eth. $ 12 million.

14. *Allocation of Investment.* — The investment programme for the Second Five Year Plan period anticipated the following total investments and their allocation:

Allocation of Investments for the Second Five Year Plan

Sector	Millions of Eth. $	As per cent of total
Agriculture	354.7	20.9
Forestry	7.0	0.4
Fishing and Hunting	1.3	0.1
Mining	74.0	4.4
Power	57.8	3.4
Manufacturing Industry	318.5	18.8
Handicrafts & Cottage Industry	5.0	0.3
Building & Construction	9.0	0.5
Transport	284.9	16.8
Communications	31.5	1.9
Trade & Commerce	22.0	1.3
Catering & Tourism	21.0	1.2
Financial Intermediaries	3.5	0.2
Education & Culture	30.2	1.8
Health	38.9	2.3
Community Development	10.8	0.6
Other Services	12.4	0.7
Government	28.5	1.7
Housing	250.0	14.7
Others	20.0	1.2
Increase in Stocks	65.0	3.8
Total:	1 646.0	
Contribution to Development Fund	10.0	0.6
Investment Reserve	40.0	2.4
GRAND TOTAL:	1 696.0	100.0

Out of the total amount of Eth. $ 1,696 million, Eth. $ 1,262 million should be assigned to investment in economic activities, while Eth. $ 394 million have to be allotted to the investment in the service-rendering sectors. The remaining amount of Eth. $ 40 million should be kept as an investment reserve.

15. Because it provides the largest production increment both in terms of food, raw material, and goods for export, agriculture is given the highest priority in the investment programme. Total investment in agriculture is estimated at Eth. $ 355 million. It is expected that the farmers' contribution in labour will be of great significance, so that the investments in kind are estimated at Eth. $ 113 million. This will call for very strong support and assistance by the Government in the form of a Community Development scheme, Extension and Veterinary services, etc., and also for the initiative and close cooperation of the farmers with the Government. Monetary investment in agriculture, estimated at Eth. $ 242 million, is intended for various surveys (Awash, Blue Nile, Wabi Shebelli, etc.) and for irrigation schemes which are of longe-range nature. Immediate benefits have to be expected from the investment in large-scale farms for which Eth. $ 127 million should be expendend. This segment of agriculture seems to be the most propulsive one, since it must increase the production of industrial crops and supply sufficient cattle for the processing industry.

16. The industrial sector as a whole requires the investment of Eth. $ 450 million, out of which manufacturing industry will receive Eth. $ 318 million, mining Eth. $ 74 million, and electric power Eth. $ 58 million. The manufacturing industry development programme has been phased in such a way that out of the total investment, Eth. $ 294 million should be utilized during the Second Plan, while Eth. $ 24 million are intended for projects to be completed in the course of the Third Plan. Investment for mining is partly intended for surveys and prospecting (an amount of Eth. $ 35 million), because research into mineral wealth is the most important task, not only from the point of view of long-term development of mining, but also as regards the production targets of the Second Plan. For the exploitation of minerals a sum of Eth. $ 39 million should be invested, to open new mines or to extend the existing mines. As to the investment estimated for electric power, it will be used both for the new power plants to be completed during the Second Plan period, and for these to be elaborated in the course of the Third Plan, as well as for studies and surveys.

17. Owing to its complexity and to the need for fast development, transport received very high priority with a total investment estimated at Eth. $ 285 million. Together with the investment for communications of Eth. $ 32 million, total investment for the two industries comes to Eth. $ 317 million. The highest investment amount is expected to be spent for highways (Eth. $ 105 million) and feeder roads (Eth. $ 20 million) as well as for air transport (Eth. $ 89 million). Whereas the highway investment programme consists both of completing constructions already begun, as well as new undertakings, and the air-transport investment has been largely carried over from the past period, the feeder-road project is a new one, to be implemented by the combined efforts of the Government and local initiative. The investment for the new Shipping Company is also a new item, while other branches of transport and communication should continue to extend their capacities along the lines which had been initiated during the First Five Year Plan period.

18. A total of Eth. $ 250 million had been estimated for investment in housing. The programme anticipates that about $ 120 million will be investment in kind, out of which Eth. $ 110 million is for rural housing and Eth. $10 million for urban housing. Here again the utilization of labour is being emphasized as the suitable method for improving housing conditions, particularly in rural areas. As far as monetary investment is concerned, amounting to Eth. $ 130 million, it should come primarily from personal savings (Eth. $ 120 million), leaving only a small sum of Eth. $ 10 million to be provided by Bank loans, to assist the low-cost housing projects.

19. Other industrial and social services investment is estimated according to the targets which have been set. Obviously the growth of the sectors concerned does not depend on new investment only, but on the availability and efficiency of the personnel as well. The investment programme for the Second Five Year Plan, as well as the recurrent expenditure programme, had therefore to be properly balanced, with the aim of achieving maximum results at minimum costs.

20. *Economy in Investment.* — The investment programme for the Second Five Year Plan by its structure tends to maximize the growth of the economy and social services. Although the returns

depend both on capital and current costs, the expenditure on construction, equipment, and others which form the investment should be optimal, since they have a decisive influence on the profitability of new projects. On the other hand, financial resources will remain a scarce factor, due to great need for capital and to limited domestic saving. Both the principle of profitability, and the scarcity of the financial resources, emphasize the economy in investment expenditure which should be one of the guiding principles for the implementation of the Second Five Year Plan targets.

21. Economy in expenditure has to be sought in all the stages of the implementation of the investment programme. Attention should be given particularly to the following :

(a) in the preparatory stage of each project all economic factors such as the availability of raw material, labour force, capital requirement, costs of production, profitability, marketing, etc. must be properly studied; studies and designs should be designed to save on capital expenditure, while in allocating the project, the already existing infrastructure and transport costs should be borne in mind;

(b) studies and designs must avoid any kind of unnecessary or luxury expenditure; the structure of investment should give priority to the equipment, which is actually the most productive capital asset, and to the reduction of costs of building to a reasonable level;

(c) building and construction expenditure must be kept under control by all means, with the view to spending only the amount which is really necessary;

(d) the time required for building and installing the equipment must be minimized; the time table of various work must be synchronized with the aim of shortening the construction period;

(e) during the construction period a proper organization and management must be established, and technical personnel, as well as the operators and supervisors must be trained in order to get both the organization and the labour ready by the time the project is completed;

(f) the production testing period must be as short as possible, in order to begin production at an earliest date.

It is recommended to all investors, private, public and co-operative that they follow strictly the principles of economy in expenditure.

This is one of the most important factors in reducing costs of development and increasing the profitability for the benefit of both the investors and of national progress.

22. To promote economy in expenditure the Government will study thoroughly all the projects submitted for licensing or other kinds of administration. At this stage the Government Agency concerned will particularly examine the location, the capital, and the labour-intensity of the projects. It will endeavour to locate the complementary industries in the same region, with the view to increasing the efficiency of each particular project, and avoiding unnecessary transportation of raw materials and semifinished goods. Regional development studies in respect of raw material, labour force, transport and communication, infrastructure, and marketing will have to be undertaken by the Government Agency concerned in order to assess the best macro-economic location for various projects to be suggested to the investors.

Balance of Payments

23. The balance of payments deficit is expected to increase from Eth. $ 33.5 million in 1953 to Eth. $ 86 million in 1959. This is primarily due to the growing import of capital goods and goods in process, which are necessary for the economic expansion. Imports are estimated to increase from Eth. $ 229 million in 1953, to Eth. $ 419 million in 1959, while exports should rise from Eth. $ 184 to Eth. $ 328 million in the same years. The trade balance deficit is expected to diminish by Eth. $ 6 million on account of surplus invisible trade, so that the balance of payments on current account will be in deficit by Eth. $ 86 million approximately.

24. The current transaction deficit appears to be a heavy burden on the national economy. However, due to its physical aspect, consisting mainly of equipment, it should largely contribute to the country's development. The greatest part of the deficit should be covered by foreign loans (Eth. $ 81 million), and the remaining Eth. $ 5 million by monetary gold and foreign exchange earnings.

Financial Reserve

25. A five-year period is long enough to bring about unexpected situations which might result in financial unbalance. With a view to

reducing the risk to a reasonable level, the financial scheme for the Second Five Year Plan has quite a strong reserve for investment, recurrent expenditure, and balance of payments. The investment fund reserve is estimated at Eth. $ 40 million which might be provided from the funds of the business sector and private savers. In addition, the estimated Eth. $ 20 million to be accumulated in the Public Servants' Pension Fund can be used for investment purposes if necessary. The forecasts of State revenue and expenditure provide for a Budgetary Reserve to reach Eth. $ 10 million in 1959. Finally the surplus of the national currency backing over the four months foreign trade requirements, in terms of foreign exchange and gold, is estimated to average Eth. $ 40 to 50 million.

26. The total financial reserve, estimated to be at least Eth. $ 110 million in 1959, should be considered as the strategic reserve for the implementation of the Plan. Only in the case of an emergency which might hinder the implementation of the Plan should the financial reserve be utilized. In such case the Government will endeavour to supply the reserve funds with other fresh financial means from various sources. The financial reserve will be, in fact, used as the backing for extending the credit funds, both short-term and long-term.

Chapter 6

AGRICULTURE

1. The objectives of Agricultural Development for the Second Five Year Plan must be stated in terms of the important role agriculture will play in the national economy, recognizing the existing natural conditions which affect agricultural development and the impact of such development on the political and social life of the country.

2. Agriculture is the largest sector of the economy: its share in the national income amounts to more than 70 per cent, while about 90 per cent of the population are employed in, and derive their living from agriculture. Almost the total export consists of agricultural products or products derived from them. The activity and income generated in many branches of the economy depend on the results achieved in the agricultural sector of the economy. Thus, agriculture supplies the basic raw materials for manufacturing industry while the volume of internal trade, export, and transport is for the most part determined by the turnover of agricultural goods.

3. The economic conditions, the cultural level, and the national and political consciousness of the vast population living on agriculture have an important bearing on their social and political attitudes. Since such attitudes of the majority of the people are of concern to the Nation, agricultural planning and rural progress assume greater significance in the Second Five Year Plan.

4. The natural conditions for agricultural production in Ethiopia are very favourable. Climatic conditions allow a large variety of products, tropical, sub-tropical and those belonging to the temperate zone, to be grown, providing a basis for self-sufficiency in regard both quantitatively and qualitatively to growing needs for food and for raw materials for diverse branches of manufacturing industry. The possibilities of increasing agricultural production are vast. Considering the low yields which result from extremely inefficient farming methods and tools, it is also possible to raise the yields by area units considerably on a dry farming system. There are large areas of land

that can be irrigated to allow high, stable yields and at least two harvests yearly. There are still large waste cultivable lands, pariculary in the sparsely populated regions, which could be cultivated.

5. All this points to the important role agriculture will have to play in the social and economic development of the country. Speeding up industrialization and setting in motion an accelerated growth of the whole economy will depend, especially in the early stages of industrialization, on the full utilization of the production potentialities of agriculture. Therefore, in the present as well as in the future plan periods, the agricultural development programmes have to be worked out in such a manner that the organization set up to implement the programmes might be capable of achieving the production targets.

Production Targets

6. Taking into account the role and position of agriculture in the growing economy, the following will be the permanent tasks in the field of agricultural production:

(*a*) to provide food in sufficient quantity and variety to meet the demand resulting from both the continuous, significant population growth and the increasing standard of living that will accompany the accelerated economic development and bring about higher and more qualitative per capita food consumption;

(*b*) to supply in sufficient quantities and adequate quality, those raw materials which can be successfully produced in the country, and thus provide the basis for a rapid expansion of respective industrial branches;

(*c*) to contribute an important share in the stabilization of the balance of payments by securing greater quantities of various agricultural products of improved quality for export, as well as by providing for domestic needs by eliminating imports, or by restricting them to an essential minimum.

7. On the basis of the estimated population growth and the rise in per capita consumption in various foodstuffs which the planned increase of the aggregate personal consumption will bring about, it

is forecast that the total food consumption in 1959 will be about 11 per cent higher than in 1954. In order to meet that demand and at the same time to provide for the decrease of imported food, as well as for the planned increase of export of agricultural products, it is necessary to expand the production of the main agricultural food products, so that in 1959 in relation to 1954 the following increases may be realized:

Production of the Main Agricultural Food Products in 1959 *in Comparison with* 1954

	Unit	1954	1959	Total increase	Index (1954=100)
Cereals	, 000 t	4 872	5 402	530	111
Oil Seeds	„	351	424	73	120
Pulses	„	527	578	51	110
Sugar Cane	„	650	900	250	138
Vegetables	„	489	565	76	115
Fruits	„	55	72	17	130
Meat	„	342	405	63	118
Milk	„	761	845	84	111
Eggs (mil. pcs.)	„	1 351	1 526	175	113

8. The consumption of raw materials of agricultural origin by the existing industries and by those which will be established according to the Plan, as well as by handicrafts and cottage industry in 1959, is estimated to be the following:

Cotton	24 000 tons
Coarse fibres	9 000 „
Oil seeds	40 000 „
Sugar cane	600 000 „
Vegetables & Fruits	2 000 „
Tobacco	1 000 „
Cattle (only for slaughterhouses)	600 thousand head

9. The total export of agricultural products, excluding industrially manufactured agricultural products, is estimated to reach about Eth. $ 237 million in 1959, compared with Eth. $ 176 million, as the exported value of these products realized in 1953. In the course of the Second Five Year Plan period, the export of industrially manufactured agricultural products of frozen meat and other products of the meat processing industry in particular, will have to expand considerably. Bearing in mind the trends of coffee consumption in the world, as well as a very keen competition on the world markets, it will be necessary to make great efforts to increase the coffee export from 56,000 tons exported in 1953 to a level of about 75,000 tons in 1959, an increase of 34 per cent. This can be achieved firstly by expanding markets and secondly by acquiring new markets. The export of hides and skins is expected to rise in value. This rise in the quantity and quality of hides and skins in general will come as a result of increased slaughtering, as well as through the better organization of buying hides and skins from peasants. However, due to the planned increase in the manufacture of hides and skins by domestic industry, export is not expected to rise primarily in quantity, though its value should increase considerably on account of a better quality, and consequently, higher prices. It is expected that the industrial production of vegetable oil will increase, allowing at the same time an expansion of the present level of oil seed exportation. It will also be necessary to increase the value of the export of pulses.

10. Evaluating natural, and other conditions, and taking into consideration what has been said in previous paragraphs, the following are the production targets to be realized in 1959 as the final year of this planned period:

(*a*) increase the production of cereals in relation to the production realized in 1954 by at least 530,000 tons and thus satisfy the domestic needs which will arise during that period. The increase in production should be realized for the most part on peasants' holdings by carrying out necessary improvements in the methods of production and by raising productivity of labour;

(*b*) increase the production of cotton to about 14,000 tons and make preparations to obtain, in the next 3 to 5 years after this planned period, additional quantities in order to meet all demands in that period. Beside expanding the production of cotton on the peasant farms (to about 4,000 tons) the major part of the production target for 1959 (10,000 tons) will have to be realized on the modern organized large-scale farms which are yet to be established;

(*c*) increase the production of coarse fibres (sisal, kenaf, false banana) to about 9,000 tons and thus satisfy the estimated domestic needs and create conditions to increase the production of coarse fibres, particularly sisal, on the peasant holdings in co-operation with the large-scale farms. To achieve this objective large areas will have to be put under sisal and other fibre crops.

(*d*) increase the production of oil seeds by 73,000 tons in order to improve nutrition, provide raw material for domestic industry and increase export. This increase of production has to be realized both on big farms and peasant holdings by introducing more efficient methods and tools in the production process.

(*e*) increase the production of pulses by 51,000 tons to provide for the needs of domestic consumption and to increase export, and for the new canning industry which will develop in the course of the planned period. The estimated increase of production will be attained on the peasant farms and the needs of industry will be provided, for the most part, by the big farms, which will produce a better quality of products required for the processing;

(*f*) raise the production of other vegetables and fruit for the canning industry that will be set up. It is estimated that it will be necessary for this purpose to produce some 2,000 tons of good quality products, and this will have to be achieved largely on the big farms. Increase considerably the production of paprika to be ground for export as well as vegetables for domestic consumption — mostly on peasant farms;

(*g*) efforts are to be made to improve the quality of coffee in the first place and if possible increase the quantity;

(*h*) it will be necessary to organize fattening of about 350,000 head of cattle and about 400,000 small livestock to provide the planned meat packing and canning industry with qualitative raw material and thus strengthen its competitiveness on export markets. This task will have to be carried out by the large-scale specialized farms which will be established during the Second Plan.

Financial Requirements

11. There are several basic problems which will have to be solved in order to utilize the favourable natural conditions and to carry out the task set forth. The most important are: (a) organization of agricultural research and experimentation; (b) organization of various agricultural services; (c) allocation of available material and human resources to different agricultural sectors and production areas; (d) training, and (e) the organization of the implementation of the programme.

The manner in which these problems will be solved is of paramount importance to the speed with which agriculture will be able to develop in the next and subsequent planned periods. In that sense the formulation of the agricultural programme for the next five years does not consist of setting the production targets and sources for their implementation; it stretches over these boundaries and necessarily opens wider horizons to production achievements by laying down the foundations for a more rapid development of the agricultural sector of the national economy.

12. The pattern of investment and of financing agricultural development in the Second Five Year Plan depends on the basic approaches in the solution of the aforementioned problems. It will also be influenced by the manner in which the balance of needs as against the available resources becomes apparent at this stage of agricultural development.

(a) organization of agricultural research and experimentation is given full attention, bearing in mind that it is a basic prerequisite for working out that pattern of agricultural production which will make the best use of all favourable natural conditions prevailing in Ethiopia. Research and experimentation have to make possible by the end of the Second Plan, and especially in the subsequent one, a mass introduction of the most promising products, as well as a more rapid development of modern large-scale production. It is envisaged that for the purpose of research and experimentation in various fields of agricultural production, including necessary surveys which are indispensable for the assessment of the production potentialities of Ethiopian agriculture, an amount of about Eth. $ 48 million is to be spent both for the recurrent and capital expenditure during the next five years;

(b) various agricultural services such as extension work, veterinary and plant protection services, animal and seed breeding stations will not only have to form a basis for a future faster expansion of the network of these services but also to contribute directly to the achievement of the production targets set forth for this planned period. Out of a total of Eth. $ 29 million earmarked for these services, Eth. $ 6 million or 2.5 per cent of the total monetary investment in agriculture is envisaged to be used for investment purposes and Eth. $ 23 million for recurrent expenditure;

(c) big co-operative and other up-to-date large-scale farms will have to play a vital role in the advancement of Ethiopian agriculture. The expansion of these farms, based on the experience already gained (Awassa, Botter, Tendaho, Arba Minch, etc.) will have to serve as centres for the demonstration and dissemination of modern and efficient methods of farming and to become an increasingly important supplier of quality products required for the growing domestic manufacturing industry and for export. This has called for an investment policy which will concentrate the bulk of the available financial means in the expansion of the big, modern farming sector. It is envisaged, therefore, that out of Eth. $ 242 million, which sum represents the total monetary investment in agriculture during the Second Five Year Plan, about Eth. $ 128 million or more than half will be invested in modern large-scale co-operative and other farms;

(d) the peasant holdings will be assisted by a network of institutions dealing with extension work and protective services, and by the co-operative movement in particular. Besides the financial means which, in the form of services extended by various institutions for agricultural promotion, will benefit the peasant agriculture, the Government's financial assistance aims at spreading co-operatives in the villages. The sum of Eth. $ 22.6 million, or nearly 10 per cent of the Government's total monetary investment in agriculture, is earmarked for investing in the multipurpose agricultural co-operatives:

(e) training personnel in a sufficient number to meet the various urgent needs and to enable the execution of the programme of agricultural development has not only been a separate field which presupposed the absorption of a necessary amount of the Government's financial resources, but has also acted as a check on the steady implementation of the programme taken as a whole. This is because the number of qualified personnel is one of the most serious limiting factors conditioning the pace by which modern farming can spread. On the other hand the training of such personnel, besides being a time-consuming process, depends not only on the magnitude of the financial means available for that purpose, but also on the solution of many other organizational problems. The amount to be spent for training, both in the form of recurrent and capital expenditure, in the course of the next five years is estimated at about Eth. $ 5,6 million, which does not include the amount to be used for training agricultural technicians within the community development programme.

13. Taking into account the estimated investment in kind on the peasant holdings, the total amount to be invested in the agricultural sector of the economy during the years 1954-1959 will be Eth. $ 355 million, out of which Eth. $ 113 million represents investment in kind, Eth. $ 5 million in money to be undertaken by the peasants directly, and Eth. $ 237 million as the Government's financial share. With the Eth. $ 29.5 million to be used for recurrent expenditure, the total financial means that the Government will direct into the agricultural sector during the next five-year plan period will amount to Eth. $ 266.5 million. The distribution of this amount is given in the following table :

The Distribution of the Total Investment in Agriculture for the Whole Five Year Period 1955 - 1959

	Millions of Eth. $
Total (including):	355
Investments in Kind	113
Money Investments	242
Distribution of Money Investment	
Building of Large-scale Farms	127.7
Peasant Holdings (self-financing)	5.2
Co-operatives	22,6
Extension Services	0.8
Veterinary Services	2.4
Plant Protection Services	1.4
Animal-breeding Stations	1.1
Seed-breeding Stations	0.3
Training of Personnel	2.1
Research	1.9
Surveys	38.7
Others	37.8

The budget for recurrent expenditure is estimated at a total of Eth. $ 29.5 million, distributed as follows:

The Distribution of Recurrent Expenditure in the Agricultural Sector

	Millions of Eth. $
Total	29.5
Research	6.8
Extension Services	6.5
Veterinary Services	9.4
Plant Protection Services	5.1
Animal-breeding Services	1.4
Seed-breeding Stations	0.3

14. These proposed investments and recurrent expenditure should make possible an increase of 12 per cent in the total

agricultural output of 1959 compared with that of 1954, showing an annual rate of growth of 2.3 per cent.

Promotion of Agriculture

15. *Peasant Farms.* — Due to the fact that agriculture is almost exclusively based upon peasant farming it is evident that full attention should be devoted to the improvement of peasant holdings. Without improving the living conditions of such a large part of the population, it will not be possible to achieve the basic target of economic and social development, viz., a continuous improvement of the standard of living of the people. The socio-political implications of the programme of improving the standard of living of the rural masses, already referred to, only add to the significance of the tasks that require continuous and concerted efforts. For this reason the Second Five Year Plan sets forth extensive tasks and envisages measures for agricultural improvements as well as for the advancement of the countryside. The shortcomings of the existing peasant farming point clearly to the main lines along which the development of the peasant agricultural sector has to proceed.

16. The basic characteristics of peasant agriculture are out-of-date traditional land relations and the land tenure system, inefficient methods of production because of primitive implements and tools and a lack of elementary know-how. The consequences are extremely low productivity in terms of output in relation to both manpower and area, low per capita income and consumption, subsistence economy as a dominant mode of living, very small or no savings, and consequently very limited possibilities which have to be solved in order to realize the necessary improvements in peasant agriculture and of the countryside. These problems are interrelated and it is not possible to solve them singly. Therefore it is necessary to approach peasant agricultural improvement in its totality and carry out all the indispensable measures in a well synchronized way and according to the Plan. The future agricultural policy must constantly bear in mind the importance of following up and studying the trends in agriculture, as well as of evaluating the measures undertaken, to

discover and undertake new measures which will aid and accelerate development.

17. The execution of Land Reform with the final aim of realizing the proclaimed principle that "the fruits of the farmer's labour must be enjoyed by him whose toil has produced the crop", should be considered as a composite part of the measures for the development of peasant agriculture. The execution of the first phase of Land Reform during the Second Plan is, in fact, a sine qua non for the successful application of other measures.

18. In cultivating the crops many operations which are indispensable for the achievement of satisfactory yields are not performed because there are no tools with which to carry them out. For example, nearly all the crops are sowed by hand. There are practically no tools or implements to cultivate the crops between rows and therefore, as a rule, it is not done. The preparation of seedbeds is very poor. The threshing of grain is an operation which not only takes much time but also leads to big losses of grain and considerably reduces the useful yield. Livestock fodder is not stored for the dry season, so the livestock have low productivity due to poor and irregular feeding. Much time is wasted in the inefficiently organized household activities such as providing water and fuel, grinding grain, preparing meals, etc., with the result that considerable manpower is excluded from agricultural production. Because of a low labour productivity, in spite of ample labour force in agriculture, there is still a shortage of manpower to cultivate more land and to carry out on time, and in the proper way, all those operations in crop management practice which might lead to a more significant increase of the total per capita and per hectare production. All this means that for the economic and social development of the countryside it is necessary to start increasing the productivity of labour in production, as well as in the household activities. This has to be done by applying measures such as better agricultural methods and techniques, a timely carrying out of certain operations, better seeds, manuring, etc.

19. The tools, implements, and machines which will primarily have to be introduced are mouldboard iron ploughs, harrows, rollers,

scythes, simple drills, harvesting and threshing machines, winnowers, selectors, carts, etc. At the same time it will be necessary to erect mills with service paid in kind, pounding mills, to introduce water pumps, dig wells, build cisterns for water in places where wells cannot be dug, build better storage space for agricultural products, introduce simple devices and appliances that will facilitate household work. Parallel with this it is necessary to introduce new crops, better seeds, new working methods, and field manuring, to prepare livestock fodder, select better and more productive cattle for breeding, protect the livestock and crops from diseases and pests, improve the processing and conservation of hides and skins and the home processing of agricultural products, spread cottage industry, etc. All this will make possible an increase of labour productivity and the improvement of the general living conditions of the village population. The National Community Development Scheme is expected to be the most appropriate organization through which the accomplishment of these complex tasks will be sought.

20. New tools and implements, as well as other agro-technical means and measures make possible an increase/of labour productivity and production, but they call for many changes in working methods. It is, therefore, essential to teach the producers to utilize new tools properly and to apply new techniques in agricultural production. Since it is necessary simultaneously to introduce more innovations, special attention should be devoted to the elementary training of the producers. In order to use the proposed technical means efficiently it is very important to attend to their maintenance, make the necessary repairs, lubrication, etc. Skilled workmen are necessary to operate the threshing machines. While training the producers to use the new technical means properly and to apply new agro-techniques, it will be important at the same time to qualify the village craftsmen to maintain the new tools and implements. This means that the Agricultural Extension Service will be given an important role and will have to be organized to suit Ethiopian conditions best. The basic principle to be followed is that the advice regarding improvements must be accompanied by the means to apply the advice given.

It will therefore be necessary to combine the activity of these services with the development of farmers' co-operatives. These efforts will lead to an increased production and better quality of products, meeting the growing needs of the rural population and the demands of the market. The production and per capita income will grow, and in addition to raising the standard of living of the producers, it will be possible to set aside more means for expanding and further promoting production. Subsistence economy will be discouraged, money economy will develop in agriculture and this will have new positive influence on the increase of agricultural production and changes in the countryside. It will also create a market for the growing domestic industry. Interest in increased and improved production will develop among the producers and they will be more inclined to adopt new methods and know-how. The cultural level of the producers will rise, their national and political consciousness will be strengthened resulting in their desire to contribute more to the economic and social development of the country. In this way they will improve their material and other conditions of life. Thus the vicious circle which has been fettering agriculture for centuries will be broken, and it will become an important factor in accelerating the economic and social development of the country.

21. In order to introduce the proposed tools, implements and machines it will be necessary:

(*a*) To have them available for purchase at favourable prices in relation to the prices of the agricultural products. Some of these are already available in Ethiopia, others will have to be imported. Therefore, it is necessary to start immediate construction of a factory and produce the tools and implements at home. To enable domestic production to supply the tools, implements and machinery at relatively low prices, in the beginning the Government will have to support it with suitable policies (tax exemption, etc.);

(*b*) to enable the producers to obtain the tools, implements and machines. When the producers realize the benefits occurring through the introduction of the new tools and implements some of them will find the money to buy them, especially as tools will not be expensive, but a larger expansion of these tools and implements could be induced only through the Development Bank's credit extended to the Grain Corporation or Farmers' Co-operatives. These organizations will then be able to buy tools and implements and supply them to the advanced farmers on moderate credit terms. Repayment of the credits should mainly be done in kind, i.e., with farmers' surplus. Selectors, threshing machines, winnowers and other agricultural machinery should be provided by the farmers' co-operatives and leased to the farmers at reasonable rates. These more expensive implements will also have to be sold on credit supplied by the Development Bank through the co-operatives or Grain Corporations with instalments paid out of the sale of the produced surplus. These practices will have a twofold favourable effect — the more rapid application of efficient agricultural implements leading to larger production, and an increase in the marketable agricultural output leading to the commercialization of peasant agriculture;

(*c*) to instruct the producers to use the tools, implements and machines properly, i.e. to get them to know and employ the new agro-technical methods made possible by using new techniques. This has to be done through a well organized and efficient Agricultural Extension Service, making available a sufficient number of skilled personnel and the other necessary means.

22. *Farmers' Co-operatives.* — A faster advancement of production on a small family farm, an increase of its market surpluses and, in connexion with this, the increase of the productivity of labour, national income, and a general standard of the agricultural population, can be achieved, above all, by a more extensive organization of farmers' co-operatives.

The role, tasks, and working methods of the co-operatives, which are well known farmers' organizations throughout the world, have been outlined in detail in Chapter 9 "Co-operatives".

23. With the aim of carrying out the tasks set for the development of peasant agriculture, the Extension Service of the Ministry

of Agriculture will have to accomplish, in the Second Five Year Plan, the following targets:

(*a*) Introduce for permanent use on the peasant farms at least the following number of:

Mouldboard iron ploughs	15 000
Harrows	15 000
Rollers	1 000
Hoes, scythes, etc.	100 000
Carts	2 000
Drills	100
Harvesters drawn by oxen or horses	300
Threshing machines	300
Winnowers	500
Grain selectors	500

(*b*) Spread the use of better seeds among the farmers on their holdings as follows :

Wheat, on hectares	50 000
Barley, on hectares	20 000
Maize, on hectares	20 000
Pulses, on hectares	10 000
Oil seeds, on hectares	10 000

(*c*) Extend the cultivation of better or new crops on peasant farms:

Cotton, on hectares	20 000
Sisal on hectares	1 000
Vegetables, on hectares	100
Coffee, on hectares	500

(*d*) Carry out afforestation in the countryside by planting fast-growing trees on 30,000 hectares. Introduce hay storage and other cattle feed for the dry period on 10,000 farms. Organize the utilization of selected male breeders for cattle, horses, and sheep in at least one hundred villages.

24. These and other measures are expected to bring about a rise of 11.0 per cent in agricultural output on the peasant farms in 1959

as compared with 1954, creating at the same time conditions for the realization of an even larger rate of growth in the subsequent plan period.

25. *Commercial Farms.* — Although significant development of the peasant sector has been foreseen, it will not be possible to realize the production targets in peasant agriculture exclusively. Important production targets will have to be realized on the big modern commercial farms. This sector will have to produce large quantities of raw material for the domestic industry such as cotton and other fibres, vegetables, fat cattle for the meat packing and canning industry, etc., as well as to increase production and improve the quality of products intended for export. The commercial farms will have to produce better quality seeds and breeding cattle for the development of peasant agriculture. They will have to ensure the rational use of investment funds for the cultivation of wasteland in developing new regions, such as the Awash Valley, Wabi Shebelli Valley, etc.

26. There may be several types of such farms according to ownership: co-operative farms, farms owned by Ethiopian citizens or companies, farms organized by foreign concerns on the basis of concessions granted, mixed companies, public farms and others. The development of various types of farms will be encouraged, organized or supported by the Government.

27. The Government will help and stimulate, by all convenient economic and other measures, the establishment and development of big private commercial farms. The existing land tenure system should not be allowed to interfere with the organization of large modern farms. Those who are interested will be granted Government land on a long-term lease at a low rent with the provision that they are obliged to start production at the latest within three years after obtaining the land and to cultivate all the granted land at the latest within five years in the manner agreed upon. Land obtained in this manner must not be subleased. The person who organizes a commercial farm on his own land should be exempted from taxes for five years. Special privileges may be granted to those who plant

at least 40 per cent of the land with cotton each year or who produce other fibres, particularly if they have to make larger investments per hectare in order to reclaim the land for production. Measures have to be taken so that the banks grant supervised credits at favourable terms for the promotion of commercial farms.

28. Special attention will be devoted to the establishment of public and co-operative large-scale farms. The largest part of the production targets assigned to the large commercial farms, particularly in this beginning phase, should be carried out by the public and co-operative farms. The very existence of these farms will be of extreme importance both for the introduction of more advanced farming methods on the peasant holdings in the surrounding areas and for inducing the entrepreneurs to invest their capital in the large-scale farm projects.

29. The following basic principles should guide the organization and operation of the public and co-operative farms.

(*a*) The farms will have to be built up as business organizations which will fully respect the rules of rational and economically sound business management. The workers should be paid according to the performance of their work. The organization of work and the methods of remuneration should be such as to develop an interest in the employees to increase labour productivity, utilize more efficiently the technical means, protect the property of the farm, etc.

(*b*) A possible degree of up-to-date mechanization has to be introduced on the farms; especially operations which ensure qualitative and timely agro-techniques should be mechanized. Yet, owing to the shortage of available capital on one hand and ample resources of labour on the other, the labour-intensive methods of production should be given priority whenever they prove economically justified.

(*c*) Special attention has to be devoted to the working out of procedures which will most facilitate the procurement of land for farm establishments. It appears that in the practice of the Government, taking up land on a long-term concession offers the best possibility for a speedy development of large-scale co-operative and public farms. These policies should be favoured, particularly as payments for the concession are very small at present, and at the same time this legal status of the occupancy of land would be very suitable to the business character of the farms.

(*d*) In view of the need to provide for new settlements as well as for resettlements of the population on agricultural land, the programme has to be so worked out that it will meet the demand for labour which will increase in proportion to the establishment and expansion of large-scale co-operative farms. The experience already gained has shown that there exists a high degree of mobility of labour that is always ready to move to places wherever the opportunities for a gainful employment are opened to them.

Crop Production

30. *Cereals* are the most widely spread crops in Ethiopia. They cover over 80 per cent of the sown area and are the main foodstuff. An increase in cereal consumption, as well as structural changes, may be expected in respect to the varieties of cereals which are used for food. Accordingly, the consumption of wheat would increase at the expense of barley, sorghum, maize, and even teff and such a change should be encouraged because of its benefits to people's health and the national economy. It is necessary particularly to suppress teff as a low-yielding and labour-consuming crop under the existing agro-technical conditions. In order to increase the domestic production of cereals, at least to meet domestic needs, it is necessary to improve agro-techniques and to introduce better varieties and improved seeds. An immediate research has to be undertaken, covering a wide range of conditions to determine, in the next three to four years, which main varieties of cereals are suitable for growing in the different regions. In the first place this study should cover wheat, maize, barley and sorghum. Extension Service should organize the multiplication of the selected seeds by way of contracts with the commercial, co-operative or State-owned farms. For this purpose the Extension Service should possess machines for cleaning and sprinkling with chemicals, as well as space for storing the seed in the most important regions of production. Seed production should be controlled by the research institutions which produce the original seeds.

Since experimentation and seed selection take time, the research institutions in co-operation with the Extension Service will have to start immediately selecting the existing best crops on the fields in the more important regions of production. Thus, by multiplication, it will be possible to begin an extensive replacement of the farmers' inferior seeds by better seeds. At first the quality seed would be exchanged for the grain which the peasant farmers produce, and later when they get to know the importance of these seeds, economic prices would be gradually introduced. Research should also determine for individual regions the corresponding methods of agro-techniques, i.e. most favourable sowing time, number and time of hoeing or weeding the crops during vegetation, the influence of stable manure and fertilizers on the crop yields, etc.

31. In addition to the above, improved market organization will considerably promote cereal production. By building a network of grain silos it will be possible to purchase all the offered market surplus and thus secure reserves and enable intervention in the market whenever necessary. The co-operatives should be able to rent silo space for grain storage. On this basis they could easily obtain bank credit to pay the farmers and thus avoid the selling of grain in times when the prices are too low .

32. Special attention in the current and next planned period must be devoted to realise as speedily as possible the production targets set for cotton and coarse fibres. Domestic production of fibres for industrial use will ease the balance of payments and provide employment for a considerable number of the population. Some fibres, especially sisal, can be exported in considerable quantities. There, are two methods that can be used in order to carry out these tasks. The first method is to secure the major part of the production, particularly of the necessary quality, by suitable measures of economic policy (favourable credits; obliging the textile industry to use more and more domestic raw materials; import and customs policy etc.), to encourage private capital and industrial enterprises to organize production of fibre crops directly by establishing their own up-to-date large-scale farms. The second method would be by making contracts

with the small agricultural producers, whom the industry itself, or the large-scale commercial farms, would supply with better seeds or sisal bulbs, with modern tools (on credit), and with technical instruction. They could carry out disease and pest control, purchase the produced quantities at contracted prices, keep ginneries, etc. for the farmers at cost. In order to execute these tasks a separate trade organization could be established which should benefit considerably from the experience of the organization in production of tobacco.

33. *Other Crops.* — Large farms, whose task is to produce cotton may also produce oil seeds, pulses, peppers, etc. if agro-technical and economic reasons demand it. Meanwhile, their quantities should be increased primarily by expanding and improving production on peasant farms on the lines suggested for cereals and cotton. Here, just as there, the factories, farmers' co-operatives and big commercial farms have to play an important role. In order to increase the production of oil seeds and pulses it is particularly important to introduce better varieties, to make selection among the existing ones, and to find an adequate technology of production. The production of tobacco should be expanded through the existing organization, so that considerable quantities might be exported.

34. *Vegetables.* — Vegetables are not adequately represented in the diet of the people and in many parts they are almost unknown. Only the production of chili (paprika) is more developed in some regions and consumed in large quantities, but it is mostly made into berbera. In order to improve the health of the people through nutritive diet it is essential to introduce and expand the production of various vegetables on peasant farms, all the more so because conditions exist for almost continual production. After brief experimenting in order to determine which varieties are suitable for the respective regions, as well as to find corresponding agro-techniques, the Community Development and Agricultural Extension Service should expand vegetable raising as well as introduce the methods of preparing and using them for food. School gardens, which exist in some parts and which should be extended, can contribute largely to the introduction and spreading of the cultivation and consumption of vegetables

in rural households. Measures should be undertaken to see that there will be no military garrisons, police stations, etc. — if they are situated in regions where vegetables can be raised — that do not have a vegetable garden. To supply the canning industry and larger towns it is necessary to organize vegetable production on a larger scale on the big farms. This would also influence the spreading and growing of vegetables on the neighbouring peasant farms.

35. *Fruit and Grapes* are still less represented in nutrition and in many parts they are unknown. Natural conditions for fruit growing, particularly citrus trees, bananas, papayas and grapes, exist in many regions. Considering the importance which fruit and grapes have in nutrition, it is necessary to make every effort to raise them on peasant farms for home use as well as for the local market. In order to expand fruit and grape growing it is necessary to employ the same methods as have been suggested in case of vegetables, provided that the Government and local bodies set up nurseries for seedling production. With respect to climatic conditions, Ethiopia could export certain kinds of fruit on a much larger scale than in the past, because they can ripen at the time when they cannot be produced in other parts of the world. Obviously, these possibilities are limited to those areas where climatic conditions and transportation facilities are favourable. It is necessary to stimulate the development of large-scale production of fruit and grapes by all means in order to supply the domestic market, and to avoid importing those varieties which can be produced at home.

36. *Coffee* is the most important export commodity of the country, and it will remain so in the coming planned period, in spite of the efforts which will be made to diversify exports as much as possible. In fact, in view of the relatively slow increase of coffee consumption in the world and the keen competition on the world market, serious efforts will have to be made to expand coffee exports and to win new markets. To achieve this, appropriate measures should be undertaken by the Coffee Board to improve the quality of coffee. In this way better prices will be attained and real conditions ensured for a further increase of exports. There will be a certain improvement in quality in the following years as a result of the larger participation in export of coffee raised on the plantations which were erected in

recent years. However, of more significance will be the concrete measures which will be carried out in order to improve methods in production, picking, and preparing for market the so-called forest coffee which is chiefly collected from the small producers. This will be accomplished, above all, by providing instruction on a larger scale to producers concerning the importance and methods of thinning and cultivating forest coffee (by organizing concrete action for this purpose), the most favourable time and method or picking, of the damage done by mixing picked coffee with that which has fallen on the ground, etc.

By offering a purchase price according to quality the producers can be effectively stimulated to apply the aforesaid measures. In order to secure proper methods of preparing coffee for the market, every initiative to erect stations for processing coffee by the wet method, for erecting modern equipped cleaning plants, etc., will be stimulated by granting favourable credits. It is desirable that such initiative will be taken by the co-operatives which would be organized by the producers themselves. In the production regions where such initiative is lacking it will be the duty of the Coffee Board to establish such facilities as owner built projects. In order to be able to execute these tasks the Coffee Board will enlarge its technical field service. as well as the official body which will carry out the prescribed control measures concerning the handling of coffee, and particularly its exportation. In addition, the Coffee Board should set up a Coffee Exchange aimed at the improvement of the coffee trade.

Animal Husbandry

37. According to the number of livestock in relation to her population Ethiopia is classed among the countries with the most numerous livestock in the world. Meanwhile, the economic benefits of this wealth have so far been small, both to the owners of the livestock and to the economy as a whole. The main reason for this is, above all, a very limited domestic and export market for cattle and cattle products. Since it will not be possible, for the time being, to expand the domestic market to any extent, the opening of foreign markets for Ethiopian cattle and cattle products will be one of the

key economic tasks to which full attention will be devoted in the forthcoming plan period. In this manner the numerous livestock will gradually change from dead capital to essential means of production, and parallel with this process it will actually be possible gradually to introduce and apply measures which will lead to an increase in the present very low productivity of the livestock and to improvement of the cattle products. In order to attain desirable results in this respect it will be necessary in the coming five-year period to carry out all preparatory works, primarily basic research, drafts of fundamental legal regulations, etc., so that it will be possible in the subsequent period to execute the measures for livestock improvement on a wide scale.

38. The basic disadvantages to the export of cattle and cattle products have been: (a) complete absence of any slaughtering industry, and (b) widespread dangerous livestock diseases, primarily rinderpest, foot and mouth disease, and bovine pleuro-pneumonia. The various parasitic diseases are also widely prevalent, particularly piroplasmosis. Due to an undeveloped veterinary service, these diseases have done much damage to the national economy through immense direct losses caused by a high percentage of livestock mortality, as well as through a total passivity of this national wealth which it is impossible to export. The theoretical possibility of exporting live cattle — under existing circumstances — to the Near East countries could not be effected in a larger measure owing to the difficulty of transporting cattle over the desert to the sea ports. Therefore, to make export possible the Second Plan has foreseen the building of a more extended network of modern slaughtering industry, whose capacity, together with the expansion of the existing industry, would increase from about 7,000 tons to 42.000 tons of meat by 1959.

39. In the course of the next five years the Government will organize a sufficiently efficient veterinary service in all the more important regions of production, primarily in those regions which will supply the existing industry with raw material, in order to enable the slaughterhouse industry to increase without difficulty its export potential.

40. In order to create favourable conditions for transporting the cattle to the markets, the Government will continue the construction of water ponds already begun in the Borana region and gain further experience in this respect. For the same purpose, initiative may be expected from local authorities in co-operation with the people, who could, by voluntary local public work in the regions along the main trails over which cattle are transported, build a considerable number of wells and in their vicinity reserve necessary areas of public pastures where the livestock can graze during the journey. The Government should extend all technical assistance to such local initiative. Action taken on these lines, both in this Plan as well as in the future, will qualify the main routes for cattle transportation to the market in order to create transport conditions which will reduce to the minimum the high losses suffered so far.

41. In order to supply the slaughterhouse industry regularly with quality cattle the Government will, by granting favourable credits, stimulate every initiative to establish new commercial farms or to make the existing ones fit for fattening the lean livestock bought from the peasants and then sold to the slaughterhouses. This fattening would be carried out by the commercial farms on specially organized productive pastures (to be utilized in rotation during the rainy season). These farms will produce and store necessary fodder for the dry period in order to fatten cattle during that season (by producing leguminous hay and grain feed on the ploughed fields, making hay on natural meadows, etc.).

42. Along with the expansion of markets for cattle and cattle products, interest will gradually develop among the producers to improve the quality of cattle and its productive attributes. The producers will take interest in adopting measures which will lead to this goal. Therefore it will be necessary to begin in the Second Plan such an extensive preparation that will ensure the required conditions in the coming period, on a sufficiently wide scale, to improve the quality and productive attributes of the cattle. To achieve this it is necessary :

(a) that the existing state livestock centres, at least two or three, start raising and selecting quality male breeders. They will then be used to improve the quality of the livestock in certain regions by establishing communal and co-operative bull and ram stations. Livestock centres will examine the possibilities of introducing better breeds of cattle and sheep, for the most part those which are already acclimatized in the neighbouring countries. They would later be multiplied in order to raise pure-blooded stock or to cross them with domestic breeds. In this connection it is necessary to gain adequate experience in artificial insemination;

(b) in certain regions where possibilities will permit, to begin in a limited measure to select male breeders, particularly bulls. In this case it will be necessary to select, among the bulls owned by the peasants, a sufficient number of the best specimens (according to the number of cows) and obligatorily castrate the rest. Thus, only the best heads would be used for propagation. Later, according to the quantity of production, breeders of still better quality will gradually be used.

43. Considering that there is an increased demand for wool in Ethiopia it is necessary to promote the breeding of wool-producing sheep, and thus obtain more benefits from sheep raising. To achieve this it will be necessary to continue to spread the raising of merino sheep on peasants' farms. In the Second Plan at least one large commercial farm to raise merino sheep should be established. The merino herd which already exists in Ethiopia could be used as a basis for this farm and the Ministry of Agriculture will immediately organize the necessary studies in order to determine the location for raising merino sheep so that the farm may be designed and erected in the shortest time. Parallel with this it is urgent to prepare and specialize in advance the necessary skilled personnel. The principal task of this farm will be to spread merino sheep in all the regions where preliminary experimentation will assure the possibility of economically breeding merino sheep.

44. The main obstacle which stands in the way of introducing better breeds of livestock and of improving the quality of the existing cattle is poor and insufficient feeding, while lack of markets and various widespread diseases of livestock add to the problem. The cattle thrive exclusively on grazing, but the pasture lands are for the

most part of the year very poor owing to drought and to overgrazing. Regular overgrazing of the pastures and absence of care stimulate the growth of weeds, which reduce even to a greater extent the already low yield of such pastures. It may be expected that butchering will increase with the development of the slaughterhouse industry resulting in the reduction in the number of cattle around the slaughterhouse. This will partially relieve the pastures in these regions. Meanwhile, it will be possible to find permanent solutions by undertaking more specific measures to improve the pastures, i.e. to bring about an increase in yields per hectare by better grass composition and improvement in the quality of land. Aiming at this, it will be necessary in those regions where the pastures are overgrazed, to introduce a system by which a part of the pastures will be left unused until the grass ripens and sheds seed. In this way the overgrazed pastures will regenerate considerably in a few years. In addition, the local authorities should not allow livestock to graze on public and communal pastures at the beginning of the rainy season until the grass matures and takes root firmly. By letting the livestock graze from the beginning, the grass is not able to develop normally, and this considerably decreases possible yields and worsens the grass composition. It would be very useful to introduce a rotational utilization of the pastures, i.e. to forbid grazing on the whole area. The local authorities together with the experts of the Extension Service can accurately set the order of utilizing the public pastures in sections. It is also necessary to introduce fees for grazing on public areas, according to the number of head of cattle and not by family. In this way considerable local funds will be raised, and they could be used to undertake wider action with regard to care, cleaning, and general improvement of the pastures. With the aim of improving the feeding of livestock the Extension Service will undertake to educate the people to make hay during the rainy season and the best method of preparing and preserving the fodder for the dry season.

45. In the regions where the Extension Service is sufficiently developed, the introduction of better and more productive poultry will be continued on the peasants' farms, but on a much wider scale than so far. As far as new regions are concerned, all necessary

experimentation will be done in order to find the possibility of adjusting certain breeds of fowl in respect to climatic conditions, feeding, resistance to prevailing diseases, etc. Parallel with this the Extension Service will, by means of lectures, experiments on the spot, and other methods, endeavour to introduce better poultry feeding.

46. Considering the importance of hides and skins in the national economy, and in particular the possibility of increasing their export and attaining higher prices, it will be necessary to work intensively on the improvement of the preparation of hides and skins for the market. Where transport facilities are better, methods of salting instead of drying will have to be retained. Drying should be performed on frames and in shade. A well organized network of a purchasing system can do much for the improvement of the quality of hides and skins sold by the farmers. For that reason it is necessary to establish a public or semipublic trade organization which would enjoy the monopoly in the purchase of hides and skins (in the beginning it may be restricted to certain areas only). This agency, staffed with qualified personnel and equipped with facilities for storing and treating hides and skins will be able, by relying on co-operatives wherever possible, or its own agents, to organize purchase from peasants. It will have to apply practices of paying according to quality and in this way encourage the producers to accept better methods of preparation and preservation of hides and skins. The agency will also have to take care of the training of personnel in purchasing and handling hides and skins and in tanning, etc.

47. In addition to the organization of a purchase trade, it will be necessary to develop the domestic tanning industry and handicrafts so that by improved processing better quality hides and skins can be produced, and from them, by yet further processing, leather for export.

Organization

48. The advancement of agriculture visualized for this planned period and the laying down of firm foundations for faster development of Ethiopian agriculture in the future would not be possible without an efficient organizational structure. In order to achieve

these targets it is necessary to set up various organizational units with a clear definition of their tasks and duties.

49. The Ministry of Agriculture assumes responsibility for the implementation of the whole programme of agricultural development set out in this Plan. Its internal organization of staffing has to be such as to enable an efficient performance of various activities among which the most important are (a) study of the long-term and current problems concerning the development of agriculture and working out the proposals for a corresponding agrarian policy and legislation of the Government; (b) to evaluate on the basis of the studies; (c) to follow up the implementation of the programme undertaken regarding the adequacy of measures and organizational forms; and (d) to propose new measures, forms and changes necessary in various agricultural agencies and services.

50. The successful realization of agricultural promotion requires the establishment of various technical organizations. These organizations will have to deal with big public and co-operative farms, the establishment of services by extension, veterinary, plant protection, planning and carrying out of agricultural research, etc. The type of work these organizations have to perform points to their strictly technical character. It is important to make these organizations to a smaller degree administrative and to emphasize, instead, as much as possible their operational and, in fact, more business-like character. For that reason they have to be completely free in performing their professional tasks. However, for the sake of a well-integrated and planned agricultural policy, these organizations will have to be guided by the Ministry. This will be made possible, in particular, by the fact that the Ministry will have to approve the programmes of the activities planned on the basis of which the Government will provide the budgetary means and by inspecting and controlling their operations. Although these institutions will be basically financed by the Government, they will also charge fees for their services whenever it is desirable and economically justified, bearing in mind that these practices must not endanger the promotion of agriculture which is the aim of these services.

51. In order to facilitate the establishment of big public and co-operative commercial farms, an Agricultural Development Agency will be set up. This organization will have the following main tasks :

(a) to perform all the preliminary work necessary for erecting and organizing the farms and especially to: (i) select potentially suitable localities for erecting the farms. (ii) organize experimentation in those regions with the aim of finding out in two to four years which varieties and sorts of crops should be grown and what agro-techniques are the best to employ. (iii) organize simultaneously meteorological observation. land survey. plant disease and pest control research. etc.:

(b) to work out designs for the erection of the farms, organize their establishment as well as the management. until they are able to operate as autonomous business concerns:

(c) to analyse. study. and advance the organization of production and labour. the system of workers' remuneration. etc. and to extend technical and other assistance in planning and implementing the production targets:

(d) to organize bureaus for groups of farms for dealing with matters which if handled jointly will be more profitable organizationally and financially. These matters comprise. for example. the commercial service. financial bookkeeping and supervision of business. analyses and planning. research work to promote production. designing and erecting processing plants. education of the personnel who cannot be trained on the farms. repair of machinery. etc.

52. The Extension Service will have to play the most important role in the process of introducing advanced methods of farming and improved technical means in the peasant sector of agriculture. To ensure the high degree of operational flexibility which is a prerequisite for the successful realization of these significant tasks, the Extension Service will be established as an operationally self-reliant technical agency of the Ministry of Agriculture. It will operate through the technical expert staff located in the provinces and in lower administrative units. However. as in the case of other agricultural technical agencies, the Ministry will guide and inspect the work of this agency and provide the necessary budgetary funds. In view of the relatively limited human and material resources which the Government

will be able to employ in this field, the main principles which will have to guide the activities of this agency during the Second Five Year Plan period will be the following:

(a) to concentrate available agricultural technical experts and specialists serving as extension workers in those regions which are near markets and main communications: in this respect the promotion of agriculture under the Commuity Development Scheme has to be fully co-ordinated with the Extension Service;

(b) to direct the extension work so that the increase of the volume of production and improvement of quality can be primarily achieved in those products which contribute most to the increase and diversification of export or to the decrease of imports;

(c) to direct activity towards those farmers who are inclined more readily to accept the advice given by the extension experts. These experts will have to advise the co-operative or other trade organizations on selling the technical means on credit and on deciding which farmers are to be given priority in obtaining the credit.

53. Research is one of the most important prerequisites for an efficient and speedy development of agriculture. In many undeveloped countries the application of known achievements in agricultural science has, in a short period of time, brought about very valuable results in agricultural production. Therefore, the organization of research in agriculture will have to be firmly established during the Second Five Year Plan period, and to this end the following major tasks are set forth :

(a) the existing research stations in Debre Zeit, Jimma and Haghere Hiwot will have to be enlarged, better equipped, and staffed with qualified personnel in order to expand their research activities considerably;

(b) new research stations will be established — one in Tigre Province and one substation in Harrar, while six newly erected buildings as Agricultural Development Centers in Arba Minch, Andassamm, Gilgel Abbai, Wawa, Chilga and Callafo will also be adapted to research activity;

(c) a Central Cotton Improvement Centre with several Regional Cotton Investigation Fields will be established to deal with research related to the promotion of cotton production;

(d) to help the introduction on peasant holdings of those improved tools and implements which are best suited to the local conditions and requirements, and a separate station will be established to: (i) conduct research in improvement of small agricultural tools and equipment and (ii) facilitate their easy handling and maintenance;

(e) the scope of research of the existing livestock breeding centres at Adametulu, New Holeta, Holeta Genet, Coffele and Andossam will be widened; in addition one highland and one lowland sheep station will be established.

(f) agricultural research institutions will, in the course of the next five-year period, have particularly to emphasize research to promote those products which are most important for improving nutrition and increasing both the export and the supply of domestic industry with raw materials.

54. To meet the need for an efficient and organized modern veterinary service, without which no progress in the utilization of the country's potentially rich assets in livestock can be forthcoming, an operationally self-reliant veterinary agency of the Ministry of Agriculture shall be established. In order to secure high efficiency, this agency should set up a Central Veterinary Institute which will have to organize research and experimentation and start production of the serums and vaccines to satisfy domestic demand. With the same aim in view, this agency should organize Provincial Veterinary Centres, firstly in those areas that will have to supply slaughterhouses and the meat processing industry with livestock, and then gradually extend to all regions of livestock in the country. It will organize four quarantine stations located in Assab, Asmara (or Massawa), Dire Dawa, and Begemder.

55. To guide and supervise all the programmes in the field of plant protection and pest, disease, and locust control in the country, a separate, technically self-reliant agency should be established. At first it will have to concentrate its activity on those regions where

measures for intensifying production during the next five years are to be carried out. The network of stations will be organized by the agency, which will also be able to do the job for farmers, free of charge, during certain periods of time, and later, when the farmers see the benefit of such measures, it may charge them for the services rendered at rates covering the actual costs incurred. One of the urgent tasks of this agency is to make an inventory of the most dangerous diseases and pests, and in co-operation with research Institutions to find out those control methods which can be most efficiently applied in the circumstances.

Training

56. Specialists, skilled personnel, and operatives of various qualifications will be needed for the implementation of the numerous tasks set in the field of agriculture. Taking into account agriculture, veterinarry service and forestry together, the following are the requirements of qualified personnel over the next five years :

The Second Plan Requirements for Qualified Personnel in Agriculture, Forestry, and Veterinary Service

	Staff available in 1954	In 1959 Required	Expected Number of Students and trainees in 1959
Agronomists	60	175	60
Agricultural Technicians	140	900	100
Veterinarians	3	25	15
Veterinarian Technicians	4	82	25
Veterinarian Vaccinators	120	320	45
Forestry Experts	3	8	10
Forestry Technicians	6	27	15
Tractor Drivers	2	80	25
Mechanics	3	60	20

Alemaya Agricultural College which now produces 31 graduates yearly should be able to graduate 60 by 1959. The need for higher educated agricultural, veterinary, and forestry personnel due to lack of domestic faculties will be met to a limited degree by granting scholarships for study abroad. The agricultural technicians will be trained in the agricultural schools in Jimma and Ambo within the range of the present yearly capacity of 45 to 50 graduates from each school. In Ambo approximately two thirds of this number will become agricultural technicians, and one third forestry technicians. As these two schools will not be able to meet fully the demand for middle trained technical personnel, in 1955 and 1956 three special centres will be established. Their task will be to qualify suitable village youths by one and two-year courses in agriculture for practical work in the field as Extension Field Officers. Each of these centres will qualify yearly up to 45 trainees or a total of 130 youths. The training centres should be prepared to begin work at the latest by 1956. In order to meet the demands for lower technical personnel and for various qualified agricultural operators, primarily for the development of pilot centres and rural co-operatives, the Agricultural Development Agency will organize on its farms special courses for this purpose. Concerning the middle veterinary technical personnel, the Government will establish the first Veterinary Assistant Training School in Debre Zeit, in which, besides veterinary technicians, each year an adequate number of vaccinators and veterinary attendants will be qualified for field work by attending special courses. At the same time the Government should provide necessary financial means to send an adequate number of veterinary students abroad. With a view to increasing the knowledge of the employed agricultural specialists, the Alemaya College and the Jimma and Ambo vocational schools will organize refresher courses with the help of the Ministry of Agriculture where the agricultural specialists will become acquainted with the latest achievements of science and practice in their fields of work.

57. With such a system of technical education and training of agricultural specialists and qualified workers employed in agriculture, the Ministry of Agriculture will, in the coming five years, meet the increased demand for personnel needed to implement the planned tasks. This will help the country to shoulder the responsibilities of a wider programme of agriculture in the years following the Second Plan.

Chapter 7

FORESTRY

1. According to very rough estimates, the total area of the Ethiopian forests many years ago covered about 28 million hectares, i.e., about 25 per cent of the total land area in Ethiopia. Around 25 million hectares of this forest area were occupied by the highland forests represented by dense anl high-growth types, indicating the most favourable climatic and social conditions. As a consequence, the farming activities of the population were concentrated in the region of the highland forests, but the traditional extensive methods of agriculture, such as shifting cultivation and grazing, led to a complete disappearance, or to permanent devastation, of the major part of those forests in the densely populated regions. Thereby the principal timber resources of Ethiopia have up to now been reduced to an estimated area of 4 million hectares, mainly located in the inaccessible south-western provinces. All the rest, amounting to about 21 million hectares of highland forests, have changed into a shrubby formation, a so-called evergreen woodland. During the past decades an additional two thirds of the estimated 3 million hectares area of the lowland and mountainous forests disappeared in a similar way, and the present total forest area in the whole country does not exceed approximately 5 million hectares — 80 per cent of which are located in inaccessible regions.

Such irrational and uncontrolled utilization of forests during the past centuries produced several adverse consequences:

(*a*) a great part of the land is exposed to heavy erosion caused by floods and winds; some land is already completely denuded while the remainder will become denuded unless necessary measures are taken to bring an end to this process;

(*b*) the people who inhabit these areas suffer greatly from an almost absolute lack of firewood, so that they are compelled to use dry cow dung for fuel; this in turn has even further aggravated the problem of preserving the fertility of soil;

(*c*) owing to deforestation and the lack of humus, the soil does not absorb moisture sufficiently and, moreover, cannot hold it long enough. This makes the crops suffer from lack of moisture more than they should considering the amount and distribution of rainfall;

(*d*) particularly in the deforested areas the lack of wood for building purposes has made it impossible to erect farm buildings (barns, stables, etc.), or to improve housing conditions;

(*e*) the damaging effects of forest devastation on the health and life of the population as the result of climate determination, lack of drinking water, etc., which are well known.

2. The absence of a rational forest economy is the cause of the areas under tall dense forests being left with a rather poor composition of trees in respect to their quality. These forests are of very mixed composition with much soft wood of a poor quality, while high quality tropical hardwood is represented to much less extent. The exploitation of these forests at present is also irrational and carried out without sufficient control. It is characterized, above all, by partial cutting, by leaving the exploited terrain uncleared, and except for the logs, leaving the timber unused. Thus natural forest reproduction is made impossible due to the stifling of young vegetation and the spread of harmful pests. In the forest coffee regions, as well as in others, it is permitted to clear the forests by burning, so that the timber is not utilized at all. The sparse forests are in most cases used as grazing ground for the numerous livestock which, goats in particular, render practically impossible any regeneration of forests, so that only shrubbery, without any economic value, is left.

3. Ownership rights on the areas covered with forests are not settled, therefore very little is known which forests are really State-owned. The question of ownership is most frequently raised only when any exploitation is started. Forest legislation to regulate ownership rights and the right to utilize forests is already drafted although sufficient authority is yet lacking, owing to underdeveloped administration, to enforce the regulations strictly.

4. Forests which have once been devastated regenerate very slowly. Due to the fact that errors in respect to forests once made are hard to correct, that they hit the future generations, and because there is a long time to wait for the results of afforestation, it is of

paramount importance to start immediately a sound long-term policy of protection, exploitation, and regeneration of the forests. The main objectives of this policy will be the following:

(*a*) Preservation of the existing forests — regardless of whether they are State-owned or private;

(*b*) Rational utilization of all the forests in order to preserve their protective character and potential productivity, and to attain maximum economic benefits, taking into consideration the interest of the present, as well as of the future generations;

(*c*) Afforestation of the land where the forests would serve as protection against erosion, and to protect water flow and accumulation (Koka Dam, etc.);

(*d*) Afforestation in the vicinity of settlements, particularly on the high plateau, in order to produce sufficient firewood (thus enabling cow dung to be used for manure), and lumber for construction purposes. These forests would protect the soil from erosion, improve the absorbtion of rains by the soil, reduce the evaporation of moisture from the soil, and considerably improve the supply of drinking water to the population.

(*e*) Regeneration of the forests, in the first place in those regions where the forests have recently been devastated, by forbidding livestock grazing on those areas where natural afforestation in conjunction with care for the forests (thinning, etc.) is possible, as well as by afforestation where natural regeneration is not possible.

5. Within the framework of this long-term forestry policy the Government will, in the course of the next five years concentrate on the following tasks:

(*a*) To enact urgently regulations by which a rational management in the State forests, as well as a control over the economy of private forests, should be efficiently introduced. It should be possible to execute this quickly because proposals for the regulations already exist.

(*b*) To continue more intensively with surveys to set the boundaries of the State forests, and then determine the quality and quantity of all the timber and work out a long-term plan of forest utilization. During the Second Five Year Plan this should be done in the accessible forests.

(*c*) To start a more intensive utilization of the accessible virgin State forests, either by the Government or, where this is not possible, by granting concessions. In carrying out exploitation and transformation of the forests into age-classed rotation forests, it is essential to develop more stages of wood processing by erecting saw mills and other wood processing plants. New contracts dealing with forest exploitation, that would stipulate a planned and full cutting of trees should be made, so that the land could be prepared for re-afforestation, as well as obliging those who exploit the forests to secure the means for reafforestation with an approved species of trees.

(*d*) To reserve a total area of 185,000 hectares of productive forest land in accessible locations, 45,000 ha. of which should be brought under planned management. This total area includes nine State forests (Mengesha, Shashamana, Wofwasha, Jibat, Munessa, Din-Din, Chercher, Belleta, and Wadera) which cover 85,000 ha. and form the nucleaus of the timber logging operations which aim at the utilization of about 650,000 cubic meters of round wood. The wood utilization on such a scale makes possible an adequate expansion of the wood industries which should be realized by proper encouragement.

(*e*) Afforestation should be carried out only by competent Government bodies and the existing contracts will have to be adjusted to this principle. The royalties for timber should be applied to all the wood and not only to the dressed technical lumber. In principle the Government should exploit the State forests on its own account because experience has shown that much higher state revenues can be realized in this manner.

(*f*) To establish a field service for the protection and management of the State forests, and control over the economy of private forests. In the course of the Second Five Year Plan it will be necessary fully to realize this objective in the area covered by all the accessible State forests. In other regions the necessary control will have to be exercised by the existing authorities, in the first place the Police force, and then by the provincial and local administrative authorities.

(*g*) To develop a network of nurseries for seedling production to meet the needs of the planned afforestation of the land which is to be protected, and of afforestation in the vicinity of the villages, as well as the need to regenerate the cut forests. For the afforestation of the protected areas and for the planned afforestation of the deforested areas, the nurseries should be organized by the Government. For the afforestation in the villages the nurseries should be organized, with the help of the Forestry Service, by the local authorities, and by the Community Development Service. Assistance could be given for this purpose by the primary schools, if the teachers have been previously trained to teach the pupils tree growing.

(*h*) Regarding the future paper and tannin factories, to establish a sufficient number of plantations of suitable trees which, together with the wood derived from the existing forests, would provide enough raw material for the new factories.

(*i*) To organize various feasibility studies with a view to utilizing minor forest products, such as lumber and eucalyptus for paper pulp, the mimosa tree for tannin extraction, and the incense tree for resin production. If such studies provide satisfactory results, the implementation of these projects should be started.

(*k*) To collect the existing sawmill equipment which is Government property and not in operation, or insufficiently utilized, and transfer it to sites where its capacity will be utilized, primarily to operate the mills for the Government's own account, or, where this is not possible, by leasing them.

(*l*) To forbid livestock grazing in the selected regions where the forests have been recently cut and where there is a possibility of natural regeneration, bearing also in mind the interests of the neighbouring farmers. To forbid charcoal production in regions where forests are scarce and where the land is susceptible to erosion or to limit it to a minimum, provided that only those trees are cut which the Forest Service has marked. By suitable measures to provide incentives to produce charcoal from offal obtained in the forests which are being exploited.

(*m*) To continue the training of skilled personnel according to the planned prospective requirements having in view that more and more attention will have to be devoted to forestry in the future.

(*n*) Through primary schools, the Community Development, the Agricultural Exetension Service, special youth organizations, and other means, to develop among the people an understanding of the importance of forests and the benefits derived from them directly and indirectly. To develop activities for mass afforestation in the villages, so that, if possible, each peasant plants a piece of land with trees.

(*o*) To finance this programme, a total of Eth. $ 7.0 million for investment purposes is envisaged. Out of this sum, Eth. $ 6.0 million is assigned for the exploitation of the virgin forest areas on the basis of concessions, including afforestation, and 1 million for investment on the part of the Government. Besides this capital expenditure, Eth. $ 2.3 million will have to be spent in the form of recurrent expenditure for the extension and qualitative improvement of the forest services.

(*p*) With the measures envisaged and the amount to be invested, it is expected that during the forthcoming five-year period, 30 - 50,000 hectares will be afforested, and that the export of wood, including wood manufactures, will be increased to Eth. $ 8,100,000 as compared with Eth. $ 700,000 in 1953.

Chapter 8

FISHING AND HUNTING

1. The considerable wealth of the Ethiopian waters in fish has so far been insufficiently utilized to improve the diet of the population and to increase export and contribute to the national economy as a whole. The main reasons for this are primarily: a) a very limited domestic market; b) sparsely populated waterfront regions, and the small number of people employed as fishermen; c) the large distance from the fish sources to the small number of centres of consumption; d) undeveloped transport facilities, and e) the very small capacity of the fishing industry, which is out of date, and as such is unable to appear successfully on the external market.

2. It will be essential in the course of the next planned period to start creating conditions considerably to extend fishing as a branch of the national economy, and to utilize the existing sources of fish more intensively. The road to development in this respect lies primarily in establishing a modern, well equipped, fishing industry and organizing the sea-fishing fleet to supply the industry with sufficient fish during the whole year. To achieve this purpose the Government will try to obtain United Nations Technical Assistance in order to organize a comprehensive survey of the coastal waters in the Assab and Massawa regions. The aim of such a survey will be to determine the quantity and species of the fish, and the direction and time of their migration according to the seasons, so that more successful large-scale fishing can be organized throughout the whole year. This preliminary comprehensive survey should provide all the necessary data for planning the construction of the new fish-processing factories in Assab and Massawa. By way of technical assistance the Government will endeavour to train a larger number of domestic fishermen to operate up-to-date fishing craft, in order to prepare in time skilled personnel for this purpose.

3. Efforts will be made during the period of this Plan to carry out necessary exploration of the lake waters along the route Modjo-Awassa, to study the existing fish species, their annual growth, etc., so

that it may be possible on this route to erect, at the most suitable place, a corresponding industry for drying and canning the better varieties of fish, and processing the inferior qualities into fish meal and oil.

4. The question of the possibility and profitability of establishing a domestic industry to produce smaller craft and equipment for off-shore fishing will be considered separately. This would enable a larger number of people to devote themselves to the fishing trade. These means could also be used to organize fishing co-operatives through which the situation of the fishermen could be considerably improved and their number would also grow. The Government will endeavour to secure sufficient credits for the above mentioned craft and equipment, and grant them on favourable payment terms.

5. To manage and co-ordinate the development of this branch of the economy the Government will set up a competent body, which considering the nature of the work, should be incorporated into one of the economic Ministries, preferably the Ministry of Agriculture. This body will also prepare all the necessary regulations in order to protect the existing fish sources from irregular utilization and damage and to set out the rights and obligations of the Government and local authorities in respect of the development and control of the utilization of this natural wealth.

6. Ethiopia possesses a vast number and innumerable varieties of game, some of which are unique in the world. As is the case with the forests, game is also diminishing and immediate steps must be taken if it is not to become extinct.

7. It is essential to introduce measures to protect this unique wealth in order to preserve it from the indiscriminate depredations of hunters. During this planned period legislation will be introduced to control the hunting of all forms of wildlife and to ensure that hunting is carefully regulated wherever it is permitted.

8. The wildlife of Ethiopia could be a great tourist attraction and it is planned therefore to establish game reserves in certain accessible regions. One of them will be set up in the Koka area where hippopotamuses are to be found, and another is a bird sanctuary

around Lake Shala where vast numbers and unique species of birds are to be found, and where there is a house which could be used as a hostel. The third one is a small forest reserve south of Shashamane where hot and cold springs and an abundance of game are to be found. It is recommended that the area north and east of the Awash Station be leased to private enterprise to erect rest houses for tourists, but in order to make this reserve accessible, the road from Nazareth will have to be improved. Finally, it is planned to introduce suitable types of game into the Managasha National Park, and for this purpose it will be necessary to make sure that the road to the park is improved.

The total cost of these wildlife preservation projects is estimated at Eth. $ 75,000, besides the additional investment which will have to be made by the Imperial Highway Authority and by private enterprise for the rest houses.

Chapter 9

CO-OPERATIVES

1. In an economy planned with the objective of increasing production, raising saving potential, improving living conditions, providing social services, and offering all the citizens an equal opportunity of contributing to the economic and social progress of the country, the co-operative form of organization can play a very important role. This has been proved by the experience of many other developing countries. Hence this plan visualises a comprehensive use of the different forms of co-operatives to enlarge the scope of economic and social progress of the people in the Empire.

2. The establishment of co-operative societies must represent an important instrument in the achievement of the objectives of the Plan. The combination of individual initiative with organized management must aim at securing the better utilization of both the available means of production and of future investment. It has to be kept in mind, however, that co-operatives are economic organizations and that they will succeed only if they operate on economic principles, which means that they should be established only where conditions are suitable for their operation.

Co-operatives must not be compulsory organizations; the members should have an economic interest and the desire to do business co-operatively. For this reason they must be strong and capable economic organizations and should be based on the principles of voluntary membership, democratic management, and shares according to contribution.

3. The principle of mutual aid which is the basis of co-operative organization, and the practice of thrift and self-help which sustains it, generate a sturdy feeling of self-reliance which is of basic importance in a developing economy. By pooling their experience and knowledge and by helping one another, members of co-operative societies can not only find the solutions of their individual problems, but can also contribute to finding solutions of the community.

4. Co-operatives have the merit of combining freedom and opportunity for the small man with benefits of large-scale management

and organization, as well as goodwill and support from the community. Thus the introduction of co-operatives with special emphasis on the needs of the peasant, the worker, and the consumer, can become a vital factor for social stability, for expansion of employment opportunities, and for rapid economic development.

5. While in the immediate future the application of co-operation is most urgently called for in rural areas, its potentiality for urban areas also cannot be overlooked. It is desirable on social, as well as economic grounds that the residents of urban areas should be enabled to reorganize their economy on co-operative lines. Consumers' stores, urban banks, and associations of workers engaged in small and cottage industries organized on co-operative lines can be of great economic and social advantage to urban people.

6. Success in co-operatives is impossible without education. Steps will therefore be taken to organize co-operative education of would-be members and the training of the staff of co-operative societies and officials of the Government who may be entrusted with the responsibility for organizing and supervising co-operatives. Funds required for these purposes will be made available by the Government.

7. To secure the creation and promotion of co-operative societies both in the rural and urban areas, a legal framework will be set up. It will channel available funds properly, provide proper education, establish all relations involved etc., so as to induce the development of co-operatives throughout the country. With this aim in view the Government will take all necessary steps to prepare and proclaim a new and comprehensive law on co-operatives as soon as possible. In this law provision will also be made for an administrative organization to incorporate, inspect, audit, and guide the co-operative organizations.

8. Having in view the importance of agriculture in the development of the national economy as a whole, during the forthcoming five-year period special attention will be devoted to the enlarging and promotion of farmers' co-operatives.

The tasks of the farmers' co-operatives will have to be manifold, so that farmers will be able to solve all the problems of agricultural production which a single individual could not solve by himself :

(i) The co-operatives should handle the purchase of the farmers' products and market them. There is a great difference between the prices which the farmer gets and those which the consumer pays. The farmer sells small quantities of mixed and unequal goods which explains why he attains low prices. The inadequately organized commerce does nothing to improve the quality of the products. The co-operatives will purchase the products direct from the farmer, sell them wholesale to avoid numerous middlemen, and pay for the goods according to quality. They will also take care that the products purchased are cleaned, graded, properly handled, and preserved in order to attain better prices. By distributing better seeds the co-operatives will spread the production of better quality crops and in this manner influence the improvement of quality. The improvement of the quality of coffee, hides and skins, oil seeds, and pulses will be best accomplished if the co-operatives organize the purchase from farmers;

(ii) The co-operatives should become centres for the development of their community. They will have to supply the farmers with tools and implements, to spread the use of better seeds and fertilizers, to organize and carry out plant protection with their own machines when individual action would prove inefficient or too expensive. The co-operative should buy all these machines and organize their common use, charging fees for the services rendered. It can organize the joint utilization of better breeders, the selection and fattening of livestock in order to improve quality, etc. By extending the scope of production, common use of machines, etc., the co-operative will spread new production methods which are the most urgent requirement for opening up the process of rural advancement;

(iii) Much better prices and improvement in quality can be achieved when the co-operatives organize the processing of the products purchased. In this manner many existing problems of the countryside may be solved, opening the road to a more rapid development of the village. The co-operatives should organize salting and better drying of hides and skins, they should pay according to quality and build storehouses for better preservation and manipulation of hides and skins, they should have coffee cleaning plants, flour mills, oil presses, etc., in order to extend services to the farmers. The co-operatives should organize for cottage industry, etc., and in all these ways make possible the earning of valuable additional income by the village population. They should have to promote fruit growing, viticulture and afforestation of the countryside. Co-operatives should also establish handicraft workshops if they do not already exist, to repair and maintain tools and implements and extend various other services to the farmers;

(iv) Much larger financial means than the farmers have at their disposal are necessary in order to introduce the use of new implements and tools, to utilize larger machines, to spread the use of better seeds, fertilizers and chemicals for plant protection, to use better breeders, establish orchards and vineyards, etc. It will not be possible to accomplish successfully such a vast programme without the adequate organization of agricultural credit on a co-operative basis. The co-operative is able to obtain larger credits from the bank and thus reduce costs, and it can distribute credits among its members more justly. The credit should not be extended to farmers in money but in goods and services, i.e. only for productive purposes. Thus the credits will be used for what they were intended, to make possible the increase of production, out of which the repayment can be made leaving the farmer at the same time with more produce at his own disposal. The co-operative could organize saving and the collection of surplus funds from the farmers, and in this way contribute to the mobilization of these funds which would otherwise be left inactive.

9. The tasks mentioned above do not exhaust all the advantages of co-operatives, yet they clearly demonstrate how immense the importance of the co-operative movement is for the development of agriculture and the countryside. It is necessary therefore to start immediately the planned training of the necessary personnel and to carry out all other preparations needed for the establishment of farmers' co-operatives.. It will not be possible during the next five years to establish a great number of co-operatives, primarily on account of a lack of personnel and experience. The main objectives in this field

for the coming five-year period will be to establish, strengthen, and make self-reliant at least 20 co-operatives, as well as to carry out all the preparatory work on the basis of experience gained, so that in the subsequent plan period as large an expansion as possible of the farmers' co-operatives can be carried out. It will be necessary to establish co-operatives, primarily in places where commodity production is already developed, such as the coffee-growing regions, the areas surrounding Addis Ababa, etc.

10. It is necessary to establish multipurpose co-operatives which will start first with marketing farmers' products and supplying agriculture in order to develop other activities in due course. This approach appears the most commendable at the outset both on account of the situation in respect of trained personnel and of the experience of many other countries where commodity production is not the dominant factor in agriculture. The co-operatives, in collaboration with the Extension Service, should become the fundamental means for the development of peasant agriculture and the socio-economic progress of the village. The Government has to assume full responsibility in extending technical, organizational, and material aid in the process of establishing co-operatives and their operation.

Chapter 10

MINING

Recent Development

1. Prospecting is of predominant importance in the mineral economy of Ethiopia and the First Five Year Plan was, therefore, oriented toward intensive, primarily geological and then mining exploration. Since there is small knowledge of the mineral wealth of the country, exploration was directed toward a rather large number of mineral outcrops and in widely separated regions of the country. Prospecting during the last five years was to show on which deposits it is possible to start mining production of minerals for which there is a demand by the developing domestic industry, as well as for export to the world market.

2. Prospecting and exploration during the First Five Year Plan were basically directed toward verifying the reserves of precious metals, mainly gold, where the reserves have been increased, and platinum. Prospecting and exploration for gold and platinum were motivated by earlier production of these precious metals. By continuing gold and platinum exploration at the deposits which had already been exploited, results have been achieved faster, and gold production has been continued, and in addition preparations have begun for the exploitation of platinum. Thus, as a result of extensive prospecting for precious metals, a beginning was made to utilize the invested funds, because gold has always held its place in the world market.

3. A considerable amount has been spent on prospecting, exploration, and study of the exploitation methods in the Dallol area where potash reserves have been found; these reserves will ensure a high output of potash during a period of twenty years. Salt outcrops have also been indicated in other areas of the Rift Valley, as well as in Borana Province.

4. Less has been invested in prospecting and exploration for other metals, such as chromium, nickel, and lead in Harrar Province, and the results have indicated the necessity for further intensive

prospecting for these metals. Nonmetal raw material has also been explored on a smaller scale and results have revealed deposits of quartz sand for the glass industry in the Ambo region, but it will be necessary to analyse its quality. Exploration for coal in the course of the past period did not give favourable results.

5. During the First Five Year Plan extensive exploration for petroleum and gas was undertaken on the Red Sea Coast of Eritrea, including the islands. The work here is finished with the result that several structures for drilling have been reached and in the other region, in Ogaden, the exploration works are in the final stage and definite results are expected.

6. The value of mining production in 1954 amounted to Eth. $ 2.3 million as against E. $ 3.2 million as had been planned, so that the implementation of the Plan was 72 per cent on the basis of value. The incomplete implementation of the Plan occurred mostly in the output of platinum. The planned quantity of platinum was not produced because preparation had not been carried out in the Yubdo Platinum Mine for a change from manual to mechanized production; insufficient exploration which should have served to prepare production, also contributed to this reduction in quantity.

7. The implementation of the investment plan for exploration and mining development works in the course of the First Five Year Plan, up to and including the year 1954, are shown in the following table:

Investments during the First Five Year Plan

	Thousands of Eth. $		Percent of fulfilment
	Plan	Fulfilled	
Precious Metals	8 300	5 500*	66.3
Other Metals	—	1 150	—
Nonmetals	—	10	—
Coal	—	20	0.6
Salts	4 400	10 000	227.0
Petroleum and Gas	24 600	10 600	43.1
Other Min. Products	—	290	—
Total	37 600	27 570	73.3

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* Including engaged funds.

The investment plan in terms of value was not implemented in the precious metal group or in the petroleum and gas group because of smaller private investment and bank loans granted than had been foreseen by the First Five Year Plan. The investment for gold in the Kibre Mengist mine is still in progress, so that results will be achieved in the Second Five Year Plan. Meanwhile, the investment out of the budget in this field has been implemented by 91.8 per cent. The same applied to oil prospecting, because exploration in Ogaden, which is in progress, should be completed in the fifth year of the Second Five Year Plan. Coal exploration did not show interesting prospects, so the allocated funds were not spent. The investment foreseen concerning salts was expended exclusively for potash, due to the encouragement of foreign capital and the planned sum was exceeded because the initial programme of prospecting and exploration was enlarged, and bigger potash deposits than were expected were found.

Production Targets

8. *Survey and Prospecting.* — The general manner of mineral exploration during the Second Five Year Plan will be somewhat changed, on the basis of exploration results achieved in the course of the First Five Year Plan in co-ordination with the prospective development of mining and industry. Fundamentally, surveys and prospecting will be carried out as a first priority in the amount spent on the pre-Cambrian schists, and as a second priority, on the sedimentary strata. The exploration of the pre-Cambrian schists should not only expose new deposits of gold and platinum, but also of basic metals, particularly iron, copper, chromium, nickel, and other deposits. Next in significance is the exploration of the Mesozoic sedimentary series for petroleum and the majority of nonmetals. Third in priority in the amount to be spent is the exploration of the tertiary sedimentary series, in order to obtain corresponding results in prospecting for various kinds of salts, petroleum, and gas. Finally, the fourth place is occupied by the exploration of the volcanic rocks to look for deposits of building material and certain nonmetals.

9. With the purpose of exploring the pre-Cambrian schists, work which had begun in the past period will be intensified in order to increase the reserves of gold in the Adola Province and other regions as a step towards larger production in the following years. In addition, the exploration for platinum in Yubdo, which has already begun, will be continued in order to start normal production in 1956. Regarding basic metals, in addition to iron ore, exploration will be carried on for copper, nickel, chronium, lead, zinc minerals, etc.

10. In order to secure the required industrial minerals it has been planned to carry out exploration for phosphates and nitrates for fertilizers, sodium carbonate for caustic soda, sulphur for sulphuric acid and for other branches of the chemical industry, and exploration for quartz sand, clay, asbestos, etc., has also been planned.

11. Of special significance in intensive exploration, and of urgent priority, is the prospecting for iron ore at all the important deposits in the country. The anticipated construction of the steel and metal industry is based on domestic iron ore, and it is therefore planned to begin iron ore production at the end of the Second Five Year Plan. Parallel with the exploration of iron ore deposits, corresponding technological research and mining development will be carried out, so that steel production may begin at the time proposed.

12. The continued exploration for salts, particularly potash, will further increase reserves, so that production will start in 1956 with 150.000 tons, and in the coming years the planned capacity will gradually increase. Besides potash, industry will have at its disposal large quantities of sodium salts, especially in the Dankali area and the region of the Red Sea. These minerals should serve as a basis for the production of polyvinyl and other products of the chemical industry which is envisaged.

13. The completion of prospecting at the petroleum and gas deposits will serve as a basis for estimating the possibilities of petroleum and gas production. If prospecting in the Ogaden and Red Sea

regions attains positive results, it will be possible not only to expand the envisaged plants for crude oil refining, but also to supply the domestic chemical industry.

14. *Mineral Production.* — Based on the results achieved by earlier and planned exploration it is anticipated that there will be produced in the course of the Second Five Year Plan, gold, platinum, potash and other salts, iron ore, manganese ore, quartz sand, clays, asbestos, and other minerals. The anticipated production trends for these products, dependent on prospecting and opening of mines, is as follows :

Mineral Production in 1955 - 1959

Mineral	Unit	1955	1956	1957	1958	1959
Gold, concentrate	kg.	800	1 000	1 200	1 200	1 200
Platinum, concentrate	kg.	10	15	15	15	15
Iron Ore	t.	—	—	—	—	200 000
Manganese Ore	t.	2 000	2 000	2 000	2 000	2 000
Potash	t.	—	150 000	300 000	300 000	300 000
Salt Mines	t.	25 000	25 000	25 000	25 000	25 000
Quartz Sand	t.	2 000	2 000	2 000	10 000	12 000
Clays	t.	—	—	—	—	5 000
Asbestos	t.	—	—	500	1 000	1 000

The value of this production is as follows :

Gross Value of Mineral Production

Year	Thousands of Eth. $	Index (1955 = 100)
1955	2 730	100
1956	7 435	272
1957	12 285	450
1958	12 740	465
1959	16 935	620

Investment

15. It is proposed in the Second Five Year Plan to continue the intensive prospecting and exploration of the mineral wealth of the country, and therefore the funds for investment are considerably

augmented in comparison with the First Five Year Plan. The Second Five Year Plan has anticipated the sum of Eth. $ 74.03 million for total investment in geology and mining, while the First Five Year Plan allocated Eth $ 37.6 million, of which Eth. $ 27.57 million were expended. The investment in the Second Five Year Plan is three times as large as in the earlier plan.

16. The planned investment of Eth. 74.03 million is intended for prospecting, exploration and new mining development. The major part of the planned investments, amounting to 53.8 per cent, is assigned for prospecting, exploration, and studies, while the remaining 46.2 per cent is allocated for investment in mining development. The larger part of the funds that are envisaged for prospecting, exploration, and studies, are the result of the basic intention of the improvement of the mineral policy of the country, which aims at obtaining as soon as possible, data on the mineral deposits, their kind, volume, and location. As to the explored deposits, investment during the Second Five Year Plan is directed towards early exploitation.

17. The geological exploration of individual regions of the country, which is forecast by the Second Five Year Plan, will be determined by the actual conditions existing in the field together with the application of modern prospecting methods. The extent of the country, the configuration of the land, transport conditions, the kinds and types of the deposits, demand the application of aerial photography, photogeological interpretation, and geophysical methods in prospecting. The combining of these up-to-date methods of prospecting with the classical geological methods of exploration makes it possible to set up an extensive and co-ordinated plan for prospecting during the 1955 - 1959 period.

18. The exploitation of minerals which is to be secured by planned investments is directed toward the production of gold, platinum, potash, iron ore, and salts, as well as the production of other minerals. The total investment for mining development amounts to about Eth. $ 40 million, and is the result of applying modern technology. Thus, for the exploitation of gold and platinum mechanized excavation and washing have been envisaged, and the exploitation of

potash will also have to be carried out by modern methods. Up-to-date technology will also have to be applied to other minerals whose exploitation is to begin in the course of the Second Five Year Plan.

19. In the group of investments for prospecting it has been anticipated that exploration will be completed in Yubdo and Kibre Mengist as a condition for mine development, while geological survey refers to a complex prospecting of the region in the Borana Province, and to geophysical survey refers to prospecting for iron ore, radioactive raw material, as well as to electromagnetic investigation for basic metals. The remaining funds are assigned for exploring new regions when the necessity arises, for drawing topographical maps, and for completing the prospecting for petroleum, gas, and potash. The proposed investments for mining development, besides providing means for the production of gold and platinum, have included funds for opening new mines on sites where exploration shows favourable conditions, as well as considerable means for the mining development of potash in Dallol.

20. Out of the total planned value for investment projects, which amounts to Eth. $ 84.03 million, the sum of Eth. $ 10 million is for investment in the potash production already started in Dallol. The sum of Eth. $ 74.03 million will be expended in the 1955-1959 period and the details by years will be as follows:

Estimated Investment by Years

Year	Thousands of Eth. $	As per cent of total
1955	27 600	37.3
1956	14 900	20.1
1957	11 800	16.0
1958	10 400	14.0
1959	9 330	12.6
Total	74 030	100

The large share of investment during the first two years and the gradual decrease of investing from 1957 to 1959 is the consequence of the completion of the plan for the mining development of potash in Dallol, since it has been planned to invest Eth. $ 18 million in 1955, and Eth. $ 3 million in 1956. Apart from this project and other investments in the course of the whole five years, the investments are on an average of about Eth. $ 10 million yearly.

21. The technical structure of total investment corresponds to the direction of investing, where particular emphasis is given to prospecting, and it similarly corresponds to the specific nature of investing in geology and mining. The elements of the technical structure of total investment are the following:

Technical Structure of Investment Projects During the Second Plan

Components	Thousands of Eth. $	As per cent of total
Studies, Prospecting & Exploration	45 200	53.8
Building	19 150	22.8
Equipment	19 680	23.4
Total	84 030*	100

22. The financing of the investments to a total of Eth. $ 74,030,000 is anticipated to be mainly from foreign sources, only a small proportion will be from domestic sources, provided mainly from the budget in view of the public character of geological surveys and the production of precious and basic metals. Two thirds of the foreign investment will be used for the exploitation of potash and for petroleum prospecting, while the remainder is intended for financing the Borana -Sidamo Project, for aerial and topographical survey, and to purchase equipment for Kibre Mengist and Yubdo.

23. Whereas the total number of persons employed in geological survey and exploitation in 1954 was 4,550, the plan forecasts that 7,000 persons will be so employed in 1959, which is an increase of 54 per cent. This slow growth of employment in relation to the increase in production and investment is because of the emphasis on prospecting, but the mechanization of the Kibre Mengist Gold Mine

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* Including Eth. $ 10 million for potash production in Dallol invested before 1955 E. C.

and the introduction of up-to-date machinery for the mining of potash in Dallol are also contributing factors.

24. It will be necessary to provide a larger number of highly qualified and skilled personnel, primarily specialists in geology and mining to survey and plan mechanized production, and to carry out laboratory research and interpretation of geological data. In order to speed up the technical training of local staff, it is planned to establish a mining engineering college, or higher academy, which would supply expert technical personnel for mining, geology, and mining engineering in gradually increasing numbers.

25. Of the new projects envisaged by the Second Five Year Plan, the first group consists of survey and prospecting projects, each of which is planned as a separate and complete undertaking. These projects either refer to individual minerals (gold, platinum, iron ore, etc.) or cover definite regions (the Sidamo and Borana project, Ogaden, Eritrea, etc.). This group of projects will provide a complete long-term plan of systematic exploration of mineral outcrops in the country whereby more complete knowledge of the mineral wealth can be obtained. This work was actually started during the First Five Year Plan and will continue even after 1959.

26. The second group of projects consists of the new mining projects for gold production at Kibre Mengist, for the production of platinum in Yubdo, for potash production in Dallol, and for the production of salt. It can be assumed that these projects will be implemented, since they are already in being, and production can be assessed in relation to the time factor. Some projects, as is the case with gold production, could be expanded in the course of the Second Five Year Plan.

27. The third group of new projects must be connected with the results of the forecast survey and prospecting, and if these results show sufficiently extensive good quality mineral resources it will be possible during the Second Five Year Plan to start implementing the projects. This is the case in prospecting for iron ore, gold in Wollega, quartz sand, asbestos, clay, radioactive minerals, petroleum

and gas, some varieties of salt, etc. In the investment plan funds have been allocated also for the purpose of new mining, even in those cases where exploration has not yet ended.

28. In order to start the planning of the new projects and to begin to execute them as soon as possible, and to attain concrete results, it is necessary that the period from the end of exploration work to production should be as short as possible, and that the administrative procedure, as well as the necessary funds, should be made accessible The co-ordination of these projects requires, above all, adequate and uniform legal regulations in respect to the granting of concessions, their utilization, and of mutual obligations directed toward the goal of achieving a full utilization of the explored mineral wealth.

Chapter 11

ELECTRICITY

Recent Development

1. In the course of the First Five Year Plan water power remained the most important source of energy in the country, which was natural, considering the large water power resources available. The hydroelectric sources also had priority, because prospecting for coal and oil over this period did not reveal any opportunity to expand these power sources.

2. Out of the 16 larger watersheds whose power has been estimated to be about 45 billion kWh, in the period of the First Five Year Plan, energy supplied by the water power of the Awash River and Blue Nile (Abbai) was partially utilized. Only insignificant amounts of water power in Eritrea were utilized from the Hydro Electric Plant at Dorfu. Meanwhile, although the water power of the above-mentioned rivers was utilized only to a very small extent, the initial stages of their utilization rendered further expansion possible in the forthcoming periods. This gradual pace of expansion applies particularly to the coming stages of the construction of the Awash, II, Awash III, and Awash IV projects.

3. In the First Five Year period the opening of the Koka Hydro Electric Plant made available considerably more energy to meet increasing demand. By erecting this hydro-electric system further expansion on the Awash river in the course of the Second Five Year Plan was made possible, while the Hydro Electric Plant at Tis Abbai on the Blue Nile is nearing completion. The envisaged erection of the Hydro Electric Plant at Dorfu III in Eritrea was not carried out, nor the Hydro Electric Plant at Jimma. In Eritrea the Diesel Electric Plant at Massawa was expanded and the first stage of the Steam Plant at Bellesa, with installed power of 5,000 kW, is in course of construction.

4. In addition, during the First Five Year Plan, diesel stations were constructed in some provincial towns such as Bahar Dar, Debra Markos, Jijiga, Lekempti, Assella, Shashamana, Yirgalem, and

Negellie (Borrana). A certain increase in the generation of electric power was made possible by expanding some electric plants, e.g. Jimma, Dessie, Gondar, Assab, and Ghión.

5. According to the existing organization the following three producer groups were in the main responsible for the generation of electric power.: Ethiopian Electric Light and Power Authority, Società Elettrica dell'Africa Orientale "S.E.D.A.O." (in Eritrea), and the industrial firms, which are supplied by electric power from their own sources. The trend of total production according to the above producers in the course of the First Five Year Plan is shown in the following table:

Production of Electric Energy

(In Millions of kWh)

	1949	1950	1951	1952	1953	1954
Ethiopian Electric Light & Power Authority (E.E.L. & P.A)	36.7	40.7	47.1	55.4	74.4	95.0
Società Elettrica dell'africa Orientale (S.E.D.A.O.)	21.3	22.5	24.1	27.3	30.0	30.0
Industrial Firms	15.0	15.9	17.3	19.0	19.0	20.0
Total	73.0	79.1	88.5	101.7	123.4	145.0
Index (1949 = 100)	100	108	121	140	170	200

6. In the first year of the Five Year Plan a total production of 77.6 million kWh of electric energy had been envisaged (taking into consideration the power generated by industrial firms in that year), so that, according to the data in the above table, the production plan was realized by 94 per cent. For the last plan year there had been envisaged a total production of 162 million kWh., while in 1954, 145 million kWh. were generated, so that the plan for this year was realized by 90 per cent. The incomplete fulfilment of the Plan is the result of lower demand, because the planned number of industrial enterprises were not erected during the First Five Year Plan. In estimating the implementation of the plan in this branch it is necessary to have in view that in the installed capacities there had been much more power (about 82,000 kW as against the 67,100 kW)

than had been planned. The discrepancy between the generated amount of electricity and the power of the installed generators indicated the existing reserves of output for which consumers were lacking in that period.

7. The capacity of the electricity supply organization to produce considerably larger amounts of power with the installed generators is essentially positive. In respect to its development, the production of electric power has to remain ahead of industry in order to render possible industrial development and to satisfy the needs of new consumers. Thus the prepared and developed generating capacities in the First Five Year Plan created basic conditions for a faster and more intensive construction of industrial projects even in the first years of the Second Five Year Plan.

8. The planned investments in electricity were exceeded in the course of the First Five Year Plan, as may be seen in the following table:

Investment in Electricity 1949-1954

	Thousands of Eth. $ Planned	Thousands of Eth. $ Fulfilled	Per cent of fulfilment
Total Investment	43 300	51 800	120

There has been a greater expenditure of investment funds because considerably larger generators were provided, which exceeded those that were planned by about 22 per cent. Of all the projects the Koka Hydro Electric Plant of 54.000 kVA was the most important and also participated most in investment, with Eth. $ 34.7 million. During the same period on the Tis Abbai Hydro Electric Plant, which is second in importance, Eth. $ 3.2 million were expended. For the construction of the Steam Power Plant in Addis Ababa and the expansion of the distribution network, about Eth. $ 5.2 million were spent.

9. In the course of the First Five Year Plan the transmission network was extended, new lines were drawn and reconstruction was carried out on the existing network. The most important projects of the transmission network constructed in the period, by which the area of power supply was considerably expanded, are the following:

Koka-Addis Ababa and Koka-Dire Dawa	132 kV :	length	about	410 km
Dire Dawa-Harrar	45 kV	..	,,	40 km
Koka-Nazareth	45 kV	..	..	20 km
Koka-Modjo	45 kV	..	,,	17 km
Akaki-Debre Zeit	45 kV	..	..	25 km
Bahar Dar-Tis Abbai	45 kV	..	,,	30 km

In addition, the 15 kV transmission network in Addis Ababa and surrounding has been expanded and the laying of underground cables has begun. The reconstruction of the network in Jimma, Dessie, Gondar, Assab and other places has been completed and high and low tension transmissions have been constructed, or are still under construction in Shashamanne, Assela, Lekempti, Debra Markos, Bahar Dar, and Negellie, and a low tension network in Jijiga. From Gondar to Azozo a 15 kV transmission line of about 10 kilometres has been built, and the construction of the 15 kV transmission line Shashamanne-Awassa is proceeding.

Production Targets

10. It is envisaged that the rapid growth of electric power production will also continue over the Second Year Plan. In 1954 about 145 million kWh were generated and it is planned in 1959 to reach 355 million kWh, which means that the average annual increase will be 21 per cent. Such a pace of growth represents a large acceleration of production, which is justified in view of the significant intensification of the economy forecast by the Second Five Year Plan.

11. Increased production will be made possible, primarily, by further utilization of the installed power generators of the projects which were built during the First Five Year Plan; secondly, by completing the large hydroelectric sources at Tis Abbai and Awash II, as well as by erecting a larger number of new hydroelectric and thermoelectric power plants in the country. It is not possible to determine precisely the level of electric power production in the Plan, because production will depend upon the increase of power-demand which in turn will depend to a great extent on the completion of the big industrial projects. Having in mind the predicted rate of increase of electric power production, and the estimated

requirement set by the Plan, it is anticipated that annual production will develop as follows:

Electric Power Production 1955 - 1959
(In Millions of kWh)

	1955	1956	1957	1958	1959
Ethiopian Electric Light & Power Authority	134	143	163	225	260
Societa Elettrica dell'Africa Orientale	35	55	60	65	70
Industrial Firms	21	22	22	25	25
Total :	190	220	245	315	355

This anticipated production will be ensured by installations which are driven mainly by water power, and it is anticipated that the comparative relation of the output of hydropower and thermal power will be 72 : 28 respectively. The total value of generated electricity in 1954 amounted to Eth. $ 11.9 million, whereas it is anticipated that total production in 1959 will reach Eth. $ 28.3 million.

12. The Plan has estimated the consumption of electricity in two fields : consumption for the requirements of the national economy, and consumption by the population and municipalities. Consumption for economic requirements covers in the main consumption by industrial enterprises and other branches of economy. It is expected that the participation of separate groups of consumers and the losses in total production will be approximately as shown in the following table :

Participation in Electric Power Consumption

	Percentage	
	1954	1959
Economy	42.5	58.5
Public Consumption and Illumination of Towns	40.0	23.0
Own Consumption and Losses	17.5	18.5
Total :	100	100

Consumption of electricity for economic requirements is estimated to reach 208 million kWh in 1959, while in 1954 it amounted to 61.5 million kWh, so that the increase by 1959 will be 340 per cent. The amount of electricity for public consumption and illumination of towns will increase, according to estimates, from 58.5 million kWh in 1954 to 81 million in 1959, which is an increase of 39 per cent.

13. The planned quantities of electric power will be generated, as has been stated, by the following three groups of producers : Ethiopian Electric Light & Power Authority, Societa Elettrica dell'Africa Orientale, and individual industrial firms. The increase of production of the EELPA will be obtained by the Interconnected System in which the new Hydro Electric Plant Awash II will begin production in 1958, and increase production by 55 million kWh, and in 1959 by 75 million kWh, while the final capacity will be 174 million kWh. Increased production by the Self Contained System from 9 million kWh in 1955 to 25 million in 1959 will render it possible to put into operation successively new and enlarged factories. Concerning new projects, it is planned to build power plants in Dilla, Makalle, Axum, Asba Teferi, Bonga, Debre Tabor, Adua and Dembidollo. Expansion of the following power plants is planned : Jimma, Dessie, Hagere Hiwot, Debre Berhan, Gondar, Debre Markos, Yirgalem, Negellie Borana, Assab, Jijiga, Wolamo Soddo, Assella, Lekempti and Shashamanne. The Tis Abbai System should gradually increase output from 15 million kWh in 1955 to 25 million kWh in 1959, while capacity in its first stage is set at 57 million kWh. Concerning the S.E.D.A.O. group, after the construction of the first stage of the Thermal Power Plant at Bellesa, existing generating power will increase by 5,000 KW. Industrial enterprises will build power plants only in those cases when the factory sites render it impossible for them to be supplied by electricity from the public network.

14. Corresponding to the anticipated production and consumption, a system of transmission lines and substations as well as distribution systems will be constructed. The construction of the following transmission lines is planned :

New Power-Plant Awash II — Koka	25 km
Koka — Akaki	75 km
Akaki — Sabata — Gafarsa	25 km

It is also planned to erect a number of substations, as well as distribution systems, which should supply about 70,000 new consumers in an area with a population of 800,000.

Investment

15. It has been forecast that total investment in electricity in the course of the Second Five Year Plan will amount to Eth. $ 83.5 million. This volume of investment indicates that electrification is given even greater impetus in the 1955 - 1959 period than it had during the First Five Year Plan, when Eth. $ 51.8 million were expended in this branch of economy. The growth of investment by 11.5 per cent makes possible the anticipated increase of production of 245 per cent. Of the anticipated Eth. $ 83.5 million, Eth. $ 7.5 million are allocated for the existing projects which are included in the Second Five Year Plan, and Eth. $ 18.2 million for new projects which will be completed after 1959. Accordingly, Eth. $ 57.8 million will be expended on investment in electricity during the 1955 - 1959 period.

16. As has been mentioned, total investments to the amount of Eth. $ 83.5 million are expected for the erection of power plants, transmission lines, substations, and a distribution network. The investments for electric power sources are grouped according to systems. Thus the sum of Eth. $ 32 million, allotted for the Interconnected System is intended for the construction of two key projects, viz., the Hydro Electric Plants Awash II and Awash III, whose construction is to begin in 1955 and 1959. Each of these hydroelectric power plants will have a capacity of 45,000 kVA. The investment of Eth. $ 19.9 million allotted for the Self Contained System is to be used for the construction of 8 new thermoelectric and hydroelectric plants, the enlargement of 14 existing separate plants of smaller capacity, and the construction of the thermopower plant at Bellesa in Eritrea, as well as separate power stations needed for the new steel plant. The investments in the Tis Abbai System, amounting to Eth. $ 5.9 million, are

for the erection of the first hydropower project on the Blue Nile. The installed capacity of this project in the first stage is to be 9,600 kVA, and construction will continue. The investment of Eth. $ 25.2 million is intended for developing the whole transmission system, which will have to be extended considerably to new consumer regions during the Second Five Year Plan. Investments according to the groups and their participation in total investment are given in the following table :

Investment in Electricity by Groups 1955-1959

Group of Investment	Thousands of Eth. $	Percentage
Interconnected System	32 000	38.5
Self Contained System	19 900	23.8
Tis Abbai System	5 900	7.1
Industrial Firms	450	0.5
Transmission Lines, Substations and Distribution	25 200	30.1
Total	83 450	100

17. The technical structure of investment in electricity is the result of the specific nature of this branch of industry where equipment is the dominant element of investment value, while in the construction of the hydropower projects, the share of building works also takes up a significant amount. The technical structure of total investments in electricity may be seen in the following table:

Technical Structure of Investments 1955-1959

Group of Investment	Thousands of Eth. $	Percentage
Studies & Prospecting	6 030	7.2
Land	1 300	1.5
Building	23 420	28.0
Equipment	52 390	63.0
Others	310	0.3
Total	83 450	100

18. The growth of investment in electricity over the Second Five Year Plan is expressed in the figures of investment by years. The

average investments in the 1955-1959 will be between Eth. $ 10 and 13million, and the invariable growth by years is the result of steady progress in completing certain larger projects and starting construction on new ones. The total investments in the 1955-1959 period distributed by years are shown in the following table:

Investments by Years 1955-1959

Year	Thousands of Eth. $	As per cent of total
1955	9 598	16.6
1956	10 050	17.5
1957	11 300	19.6
1958	13 050	22.6
1959	13 755	23.7
Total:	57 753	100

19. The provision of the funds to be invested in the course of the Second Five Year Plan is expected to come, as for the other branches of industry, from both domestic and foreign sources. The characteristics of investment in electricity, as related to the sources of financing, are shown in the relatively large participation of means from own funds, which comprise 52 per cent of total investments, representing almost all the funds derived from domestic sources. Funds from foreign loans, amounting to Eth. $ 38.2 million, are to be used exclusively for the purchase of equipment from abroad.

20. The number of persons employed will increase during the Second Five Year Plan parallel with the construction of the new projects for production and distribution. Due to the fact that the participation of labour in electricity is comparatively small, and is carried out mainly by specialists, the increase in the number of employees is relatively small. This may be observed from data which indicate that in 1954 this industrial branch employed 1,800 workers and officials, while in 1959 an increase to 2,580 is expected. Of the number of newly employed it will be necessary to provide highly qualified and skilled technical personnel.

21. *New Projects.* — The new projects in electricity are for the most part determined by the sources of powers as well as by the transmission network. The biggest new projects for generating electrical power in the Second Five Year Plan are the Hydro Electric Plants Awash II, Awash III, the Hydro Electric Plant at Tis Abbai, the Thermo Electric Plant at Bellesa and the electric plant for the steel industry. The projects for the construction of transmission lines may also be included among the larger projects.

22. Considering the anticipated intensive industrial development and settlement projects, as well as the anticipated increase of electricity consumption by other economic branches, depending on the locations and intensity of the needs, new regions of consumption and supply lines may be created. Thus, depending on the site of the projects and other consumers, a need might arise to supply the regions of Dessie and Jimma with electricity. In that case it would be necessary to carry out studies and build new hydroelectric projects on the rivers Borkenna and Ghibi Jimma, respectively. A similar intensive development of economy and settlement in the Wabi Shebelli region could create a need to design a new project for generating electricity. These forecasts emphasize the necessity of carrying out the investigation of the water resources according to a multipurpose scheme in order to utilize the water resources for future power production, for irrigation, and for water supply for the population. A larger concentration of power consumption in the Shashamanne-Awassa area could hasten the realization of a new 132 kV transmission line Awash II - Asella - Shashamanne - Awassa.

23. Having in mind the long-term economic development of the country, which will call for a further steady increase of electric power, it is necessary, during the Second Five Year Plan to undertake studies which are directed toward a long-term trend in the

development of electric power. These studies should be the basis for new projects to be realized in the following periods. It will therefore be necessary, in the course of the Second Five Year Plan to make a study of all kinds of power sources and assess the possibilities and effects of their utilization. In continuance of the concrete studies commenced in the Second Five Year Plan, priority should be given to the investigation of the possibilities of further expanding the hydroelectric system of the Awash and Blue-Nile rivers. In the same way the possibility of connecting individual systems and creating co-ordinated and more economical solutions in respect to power has prospective significance for studies and new design in this field. Such undertakings in this field will form essential pre-planning for electricity in the coming periods, and will create conditions for a faster economic development of the country.

Chapter 12

MANUFACTURING INDUSTRY

Recent Development

1. Industrial development is a very recent factor in Ethiopia's national economy. At the beginning of the First Five Year Plan the gross annual value of production of the manufacturing industry did not exceed Eth. $ 72.6 million, a negligible contribution to the national production. Only in the course of the First Five Year Plan did industrial development accelerate, so that the gross value of production increased to Eth. $ 116.3 million. The average annual rate of growth of manufacturing industry over the First Five Year Plan was 10 per cent — much higher than in the previous period. The speeding up of industrial production was encouraged by additional investment; the total investment expenditures in manufacturing over the First Five Year Plan period reaching Eth. $ 80.5 million. However, the development trend even in this period retained its former characteristics, primarily to build industrial projects which would process the existing raw materials and which would supply the domestic market with consumers' goods.

2. Industrial development over the First Five Year Plan was determined, in the first place, by existing raw materials, primarily from agriculture, animal husbandry, and forestry. Another important factor was the growing demand for textiles, footwear, cement, etc., due to the overall growth of economy and the rising standard of living. By processing domestic raw materials and expanding the textile and shoe industry, it had been possible gradually to supply the market with the domestic eesential industrial commodities. A positive consequence of such industrial orientation has been a gradual reduction in the import of basic consumers' goods, including sugar, oil, salt, beverages, textiles, footwear and others.

3. Due to the faster growth of the consumers' goods industries, anticipated by the First Five Year Plan, the development of other industrial groups, needed to meet the needs of the growing economy, was neglected. Some industrial branches, such as the chemical, metal, and leather industries did not get an adequate place in the

framework of industrial progress. The reason for this is that conditions for the development of these branches had not been created earlier on account of a shortage of raw materials, power, and financial means. Lack of entrepreneurship and of industrial promotion, as well as of mature projects, had also contributed to the underfulfilment of the industrial programme conceived by the First Five Year Plan.

4. The development of manufacturing industry in the course of the First Five Year Plan led to an increase of industrial production, due to the considerable growth, mainly of the textile industry, but also of the food industry and the tobacco-processing and beverage industries.

Gross Value of Production 1949 - 1954
Thousands of Eth. $

Branch of Industry	1949	1954		% of fulfilment	Index (1949=100)
		Plan	Fulfilled		
Food Industry	32 670	62 900	45 300	72	139
Beverages	7 880	10 500	9 800	93	124
Tobacco Manufacturing	3 300	2 000	4 500	225	136
Textile Industry	14 600	34 600	39 000	113	267
Leather & Shoe Industry	2 210	13 700	4 500	33	204
Wood Industry	2 660	3 300	2 900	88	109
Building & Nonmental Industry	4 970	6 600	5 500	85	111
Printing & Publishing	710	5 500	1 400	26	197
Chemical Industry	—	9 600	950	10	—
Metal Processing Industry	—	22 900	—	—	—
Others	3 600	3 900	2 500	64	70
Total:	72 600	175 500	116 350	67	161

The First Five Year Plan targets for industrial production were not achieved because the metal industry as well as chemical and leather industries were not started at all. The meat processing industry, also, did not fulfil the planned targets, because the investment programme was not completely implemented. The overfulfilment of targets by the textile industry and the tobacco manufacturing industry could not contribute to a fuller implementation of the Plan.

5. The bulk of investment was directed to the textile and food industries, and in a smaller degree to the building material, wood, and shoe industries. Out of the total investment of Eth. $ 80.5 million over the First Five Year Plan period, these five industries attracted over Eth. $ 72 million, or 90 per cent. On the other hand, investment in the chemical and metal industries fell completely short.

Investment in Manufacturing Industry
During the First Five Year Plan Period
Thousands of Eth. $

	1949 - 1954		% of fulfilment
	Plan	Fulfilled	
Food & Beverage Industry	20 000	26 460	132
Tobacco Manufacturing	500	460	92
Textile Industry	20 300	39 400	192
Leather & Shoe Industry	2 500	1 250	50
Wood Industry	1 300	1 360	105
Building & Nonmetal Industry	1 600	3 600	225
Printing & Publishing	1 500	350	23
Chemical Industry	1 700	740	43
Metal Processing Industry	2 600	1 050	40
Others	5 100	5 810	114
Total :	57 100	80 480	141

Production Targets

6. The industrial programme for the Second Five Year Plan represents a continuation of industrial development from the First Five Year Plan period, and at the same time attempts to deal with the industrialization tasks which arise from a long-term development of the national economy. For these reasons the development of manufacturing industry which is anticipated for the Second Five Year Plan is considerably more intensive and diversified. The pace of future industrial growth is based on the analysis of the overall economic development of the next five years in co-ordination with the forecast development of other economic activities.

The industrial programme is integrated with agriculture, mining, power, transport, and commerce, so as to achieve mutual stimulation and to speed up economic growth. The programme has also considered the availability of the labour force, the need to increase employment, the growth of the population and its income, the growing demand for industrial goods, the saving capacity of the national economy, international economic relations, and other factors.

7. As the largest and potentially most abundant source of raw material, agriculture exerts great influence on industrial development in Ethiopia. This is true not only in respect of the varieties and quantity of agricultural raw materials, but also with regard to the diverified possibilities of processing them. In this connexion industry is most directly linked with agriculture, encouraging and accelerating its development and increasing the income of the agrarian population. The processing industry development programme for the Second Five Year Plan is therefore directed toward livestock and meat processing, fish canning, production of quality edible oil, sugar, processing fruits, vegetables and milk, production of beverages, etc. Similarily, over the Second Five Year Plan, industry will expand the utilization of raw materials from the wood sector, not only for processing but also as raw materials for the chemical industry.

8. The co-ordination of the industrial and agricultural programmes points to a fuller utilization of agricultural raw material and consequently to the development of subsequent phases of the processing industry. The Plan forecasts that the raw hides and skins from the newly erected slaughterhouses will be processed and manufactured into final products (leather, footwear, and leather goods), instead of being exported in a raw state. The same applies to the processing of oil seeds, fruits and vegetables, and others, so that industrial development will encourage the growth of agricultural production by raising the demand for agricultural raw material. Agriculture will have to supply industry with sufficient quantities of textile raw material, since the Plan has foreseen the erection of factories for manufacturing cotton, flax and woollen goods, as well as sacks and ropes. Due to increasing sales, incomes of the agricultural population will grow,

increasing the purchasing power and therefore raising the need for manufactured goods. Textile and leather products will be consumed, in a large measure, by the agricultural population, due to the growth of incomes and purchasing power. The interreaction of production and consumption in agriculture will call for a further growth of farm and animal production, and will increase demand for equipment. Industry will have to produce improved agricultural tools and implements, as well as various articles for household consumption.

9. The extensive investment programme of the Second Five Year Plan will be largely realized through building and construction, which will call for large quantities of building material. Nonmetal raw materials, of which there are sufficient quantities in the country, are an ample basis for the development of this industry. Prospecting for the necessary quantities of nonmetal raw materials is foreseen by the mining programme, so that a sufficient supply of these raw materials is expected to make possible the development of this industrial group. Having in mind the demands of building and construction, as well as the availability of raw materials, it is planned to erect factories for the production of cement, asbestos-cement products, sheet glass, ceramics, bricks, tiles, lime, etc. In addition, the expansion of the capacity of the wood industry has been anticipated (timber, plywood, building carpentry, furniture, etc.), as well as the production of iron bars, iron sheets, building fixtures and other. The development of these industrial groups is thus closely linked with the demand for building materials for the implementation of the investment programme, as well as with the growth of production of mining and forestry.

10. The next set of production tasks in manufacturing industry relates to the domestic steel industry and the development of the metal processing and electrical industries. Setting the steel industry into operation is actually a part of a long-term industrial orientation which should gradually lead to a machine building industry. Prospecting for iron ore, supplying power, and studies and solutions of technological process represent co-ordinated operations of which many have not been performed by the domestic industry so far. The Second Five Year Plan envisages the performance of all preliminary work,

and the beginning of building so that the erection of the steel industry may be completed in the Third Five Year Plan period. Simultaneously the metal processing industry should be erected for obvious reasons, and until the steel industry provides sufficient quantities of domestic raw materials, it has been planned to supply the metal processing and electrical industries partly from the Akaki steelworks and partly by import.

11. The chemical industry has also been given a corresponding place in the industrial programme of the Second Five Year Plan. The new capacities of this industry are mainly based on domestic raw materials for the production of pulp for paper, caustic soda, sulphuric acid, carbon bisulfide, pharmaceutical products, tanning material, glass, and soap. Factories which for the time being are not provided with domestic raw materials will also have to be erected, considering the accelerated economic development of the country (oil refinery and tyre plant).

12. The industrial programme for the Second Five Year Plan aims at accelerating industrial production both as a whole and in individual branches :

Gross Value of Production 1954 - 1959

	Thousands of Eth. $		Index
Branch of Industry	1954	1959	(19542= 100
Food Industry	45 300	140 705	310
Beverages	9 800	16 900	172
Tobacco Manufacturing	4 500	6 500	144
Textile Industry	39 000	88 860	228
Leather & Shoe Industry	4 500	25 400	562
Wood Industry	2 900	5 700	196
Building & Nonmetal Industry	5 500	28 000	510
Printing & Publishing	1 400	7 300	520
Chemical Industry	950	36 110	3 800
Steel, Metal & Electro Industry	—	10 600	—
Others	2 500	3 500	140
Total :	116 350	369 575	316

The programme anticipates at least a trebling of the total output of manufacturing industry. Naturally, considerably higher rates of growth are foreseen for those branches of industry which are less developed but are of a propulsive character, or help export. This also refers to the production of certain commodities, the quantities of which will have to increase in the course of the Second Five Plan, as follows :

Production of the More Important
Industrial Products 1949 - 1959

Article		Unit	Actuals 1949	Actuals 1954	Plan 1959
Meat (Frozen)		t	683	5 500	35 000
Meat (Canned)		t	1 290	1 000	7 000
Sugar		t	16 181	38 000	60 000
Salt		t	132 292	158 000	275 000
Edible Oil		t	4 350	4 800	12 000
Flour		t	23 000	24 000	51 000
Macaroni		t	2 700	2 800	3 100
Beer		hctl.	41 780	67 000	85 000
Wine		hctl.	12 900	18 600	30 000
Cigarettes	,000	pcs.	252 000	370 000	500 000
Cotton Fabrics	,000	m2	5 000	21 500	74 000
Rayon Fabrics	,000	m2	—	—	6 000
Gunny bags	,000	pcs.	1 700	2 800	6 000
Leather Shoes		pair	203 000	248 000	2 150 000
Canvas & Rubber Shoes		pair	—	—	1 300 000
Timber		m3	16 300	12 500	20 000
Plywood		m3	—	1 200	3 000
Furniture	,000	Eth. $	350	450	1 300
Matches	,000	pcs.	11 800	16 000	25 000
Glass Bottles	,000	pcs.	3 800	7 500	14 000
Cement		t	26 860	29 000	210 000
Bricks	,000	pcs.	5 670	8 000	30 000
Mosaics		m2	30 000	65 000	95 000

Investment

13. The realization of the production tasks of manufacturing industry which are forecast in the Second Five Year Plan calls for a maximum mobilization of the productive factors, a full utilization of the existing capacities and considerable investment for the new industrial projects. The Plan anticipates that primarily all the existing projects and expansions of the existing factories will be completed, and that the existing industrial capacities will be utilized to a larger extent because this will increase production in the shortest time. It is, therefore, anticipated that the production of cotton yarn, fabrics, gunny sacks, leather, meat, sugar, cigarettes, and other consumers' goods will increase even in the first years of the Second Five Year Plan. This will go far towards satisfying the demand for these commodities on the domestic market.

14. Owing to the fact that the projects already started and the existing industry are neither of sufficient capacity nor of a desired structure, the Second Five Year Plan allocates important investment means for the further expansion of manufacturing industry. The extent and structure of industrial investment for the Second Five Year Plan is estimated within the framework of the overall economic development of the country. While estimating the financial means which have to be invested in various branches and projects, the available factors of production, as well as the actual conditions and circumstances of the country have been considered. As a consequence the technical structure of the forecast investment differs somewhat from the corresponding standards in other countries. It should be mentioned that the planned investment sums by years and by projects are of a preliminary character. The feasibility studies and the elaboration of the designs will provide final estimates of the necessary investments to be used to allocate the financial means in the annual plans. It will, therefore, be essential that the competent Government Agencies begin immediately to work on the studies and designs of various projects in order to make possible an undisturbed realization of the programme.

15. As a part of the long-term programme of industrial development the 1955-1959 investment plan is not restricted only to the

coming five-year period. The construction of some industrial projects was started in the last years of the First Five Year Plan, while the building of a certain number of industrial projects, due to their size and duration of construction, is expected to continue after 1959. Thus, out of the total investment sum of Eth. $ 425.9 million in the period before 1955 Eth. $ 25.6 million have been expended, while it is planned to expend Eth. $ 81.9 million after 1959. Hence, industrial investment in the 1955-1959 period will amount to a total of Eth.$ 318.5 million.

16. The allocation of the Second Five Year Plan industrial investment funds to individual branches of industry has been estimated as follows :

Investment by Branches During the First and Second Five Year Plans

Branch of Industry	Thousands of Eth. $ 1949-1954	 1955-1959
Food & Beverage Industry	26 460	75 100
Tobacco Manufacturing	460	1 000
Textile Industry	39 400	32 625
Leather & Shoe Industry	1 250	11 100
Wood Industry	1 360	2 350
Building & Nonmetal Industry	3 600	35 390
Printing & Publishing	350	800
Chemical Industry	740	96 550
Steel, Metal & Electro Industry	1 050	51 050
Others	5 810	12 500
Total:	80 480	318 465

If compared with the First Five Year Plan, the investment estimated for the Second Five Year Plan should increase almost fourfold with the result of forcing the industrial development as a whole, and particularly individual branches. The allocation of investment funds points primarily to the development of the chemical industry (about 30 per cent of total industrial investment) then the food and beverage industry (about 23 per cent), the steel, metal and electric industries (about 16 per cent). and building and nonmetal industry (about 11 per cent). The Plan anticipates considerably less investment for the textile industry which has grown rapidly in the course of the First Five Year Plan, and whose capacity is such as to satisfy domestic consumption during the coming years.

17. The accent of the investment programme on the new industrial branches which did not previously exist is in fact a new industrial orientation different from the previous one. The new industrial branches will necessarily require considerably more financial means, especially from abroad. In addition, it will be necessary to create business organizations for the construction of big projects, train specialized personnel, develop technical culture, and undertake many measures in order to ensure that the construction of industrial projects will be carried out on time.

18. The technical structure of investment anticipated in the Second Five Year Plan is also of great significance for the fulfilment of the industrial programme. Of the total planned investment of Eth. $ 425.9 million the following sums are to be used for individual components:

Technical Structure of Investment During the Second Five Year Plan

Components	Thousands of Eth. $	Percentage
Studies & Prospecting	16 890	4.0
Land	5 944	1.4
Building	124 575	29.2
Equipment	268 141	63.0
Motor Vehicles	9 580	2.2
Others	820	0.2
Total:	425 950	100.0

Equipment is expected to take almost two thirds of total investment, which means that in the case of the other components economy in expenditure must be realized. A comparatively large participation of studies and prospecting, estimated at 4 per cent of the total value of the investment is characteristic of the industrial programme, because new projects with a more complex technology demand more extensive studies and research. A larger participation of construction works has been planned only for such industrial branches as the food and beverage industry, building-material industry, and the textile industry. The value of equipment in the chemical industry, the steel, metal, and electric industries is two and a half times as large as the value of construction works since the participation of construction expenditure has been reduced in respect to the total value of investment. It is evident that by increasing the share of equipment in the total investment there will be an increase in capital output ratio which is a sign of more favourable economic results.

19. The annual investment amounts to be expended will successively grow from year to year. This will accelerate the pace of growth, and simultaneously extend the opportunity to prepare on time the necessary prerequisites to implement the set plan.

Investment in Manufacturing Industry by Years

Year	Thousands of Eth. $	As per cent of total
Before 1955	25 560	6
1955	35 795	8.4
1956	57 445	13.5
1957	65 255	15.3
1958	74 795	17.6
1959	85 175	20.0
After 1959	81 925	19.2
Total:	425 950	100

The gradual yearly increase of investment will facilitate the influx of domestic and foreign financial means, as well as the preparation of the technical and economic personnel which is one of the very important factors for a realistic set-up of the planned tasks.

20. The growth of investment from year to year renders possible a timely execution of preparatory works for the new big projects. By investing 6 per cent out of the total investment programme before 1955 the projects in construction have been, in the main, completed, and the capacity of the existing factories extended. This will increase industrial production even in 1955 so that the investment burden over the first years of the Second Five Year Plan will be somewhat alleviated. The investments in 1955 which amount to 8.4 per cent contain considerable sums for studies, research. design. and preparatory building works. The increased investments in 1956 and 1957. which amount to 13.5 per cent, and 15.3 per cent respectively of the total investment programme, represent the first stage of intensive construction of the food industry, leather and shoe industry, building, and non-metal industry. The largest investment activity is planned for 1958 and 1959 and the subsequent years. This will call for a maximum of financial means (17.6 per cent and 20 per cent respectively of the total) because the erection of the largest and most expensive projects has been foreseen for this period (the steel mill, metal and electric industry projects, sugar factory, cement, shoe factory, paper and viscose factories, with their auxiliary industries).

21. The financial means for the construction of industrial plants are expected to be obtained from both domestic and foreign sources. Considering that big and expensive industrial projects will be built with a predominant participation of equipment which must nearly all be imported, it has been planned that foreign financial means will participate with 62 per cent in the total value of the investments, leaving domestic means to account to 38 per cent. It is expected that the budget, bank loans. and funds of private investors will provide approximately one third of the domestic resources needed for financing the industrial programme.

22. In the course of the elaboration of the Plan, for understandable reasons the micro-location for each new industrial project could not be foreseen. It will be possible to make a decision on this only on the basis of detailed studies and investigation of all the

factors and conditions concerned, but new projects should be erected in all parts of the country providing the feasibility studies allow it. The location of the new industrial projects will have to be decided primarily according to the raw material and power sources, transport facilities, and the marketing and consumption analyses with the view of maximizing the returns and profitability.

Employment

23. The growing industrial production will demand a considerable additional labour force, workers and employees of various occupations and skill. Considering that there is no such personnel at present it is necessary to insist that it be trained faster both at home and abroad. The various planned industrial projects will demand that the training of technical personnel be ensured by the University and secondary schools, while different methods will have to be used to train skilled workmen. It should be emphasized that the timely training of the needed labour force and technical personnel is one of the essential conditions for the implementation of the Second Five Year Plan industrial targets.

24. In the course of the First Five Year Plan the number of persons employed in industry increased from 18,700 in 1949, to 27,600 in 1954. By expanding the existing industrial capacity, and by building new projects, the Second Five Year Plan predicts that in 1959 the number of employed persons will amount to about 57,900. The growth of employment in individual industrial branches and manufacturing industry as a whole in 1949, 1954 and 1959 is anticipated as follows:

Employment in Manufacturing Industry 1949-1959

Branches of Industry	Number of Employees 1949	 1954	 1959
Food Industry	6 500	10 200	21 900
Beverages	960	1 350	1 490
Tobacco Manufacturing	410	450	600
Textile Industry	4 770	10 100	19 800
Leather & Shoe Industry	940	960	4 260
Wood Industry	1 800	1 450	1 800
Building & Nonmetal Industry	720	1 290	3 270
Printing & Publishing	320	400	1 050
Chemical Industry	—	—	1 530
Steel, Metal & Electro Industry	—	—	450
Others	2 280	1 400	1 750
Total:	18 700	27 600	57 900

The total increase of employment in the manufacturing industry has been estimated to be 30,000, of which over 9,500 will be employed in the textile industry. The large increase of employment in the textile industry facilitates to a certain extent the programme of training industrial workers and other personnel, because the existing factories, which already have skilled personnel, can assist in extending further training. Meanwhile, new industrial branches, such as the chemical, steel, metal and electric industries will be faced with serious labour problems and will ask for skilled man power which until now has not been available in Ethiopia. This will undoubtedly render the training programme more difficult.

25. Since a certain number of industrial projects will be finished after 1959, the number of employees in the factories from the industrial programme of the Second Five Year Plan will increase to about 70,000, as when these projects are completed an additional 12,000 specialists and labourers of various skills will be necessary. This personnel will have to be secured progressively in 6 to 7 years beginning with 1955, which means that it will be necessary to begin training them on time. The overall need for high and medium-skilled personnel is estimated as follows:

University Graduates	
Mechanical Engineers	90
Electrical Engineers	70
Chemical Engineers	120
Civil Engineers	15
Economists	140
Veterinarians	15
Physicians	10
Total:	460
Secondary School Graduates	
Technical	800
Commercial	600
Others	400
Total:	1 800
Grand Total:	2 260

Due to the shortage of trained personnel and to the length of university education, the employment programme anticipates a much higher proportion of secondary school graduates than of university ones. This is a temporary provision which has to be changed during the Third Five Year Plan to achieve better proportions within the labour force composition in favour of university and secondary school trained personnel.

26. The number of employees in the whole industry and individual branches over the Second Five Year Plan will increase in accordance with the erection of new projects, while the number of employees in the existing factories will depend not only on expansion, but also upon the productivity of labour. As a consequence of the erection of those industrial branches where the technological process calls for a smaller participation of labour (chemical industry, steel industry and others), as well as those with modern equipment, the growth of employment will fall behind the increase of production. It will therefore be necessary in the future to employ more and more higher qualified personnel, whether they be technicians, economists, or skilled workers.

27. In conformity with the significant growth of production and increases in employment, labour productivity is expected to rise, which is an expression of the higher efficiency and profitability of the new

domestic industry. The relations of the gross value of production, employment and productivity is expected to change as follows:

Gross Value of Production, Employment and Productivity 1949-1959

	1949	1954	1959
Gross Value of Production in Thousands of Eth. $	72 600	116 350	396 575
Number of Employees	18 700	27 600	57 900
Gross Value of Production per 1 Employee in Eth. $	3 882	4 215	6 382

The increase in the gross value of production per employee is expected almost to double from 1949 to 1959. This will be the consequence of great improvements in all factors of production during the Second Five Year Plan. The emphasis on productivity of labour as one of the main characteristics of industrial development coincides with the general line of economic development and with the place of manufacturing industry as the most propulsive sector of the economy.

Development of Various Industries

28. *Food Industry.* — After the erection of several slaughterhouses, which will be located in cattle-raising regions, an annual processing of over 600.000 head of livestock has been forecast. The products of the new slaughterhouses (frozen and canned meat) are intended for export to foreign markets. It has been estimated that about 10,000 tons of fish products will be processed in the new plants to be erected at the Red Sea coast and the lakes. In addition to supplying domestic needs, considerable quantities of fish products will be exported. By processing oil seeds in the new plants, the existing production of edible oil will more than double (about 12,000 tons in 1959) and at the same time the quality should improve. The present production of sugar amounting to about 40,000 tons a year will increase to over 60,000 tons, and in addition, in the course of the Third Five Year Plan a new sugar factory will be erected. By building new factories and expanding the existing ones an increase in the production of flour, macaroni, egg products, milk products, canned fruits and vegetables, etc. has been foreseen. In order to make greater

use of the large quantities of domestic coffee, the construction of a new plant to produce powdered coffee (with a capacity of 3,000 tons) has been planned. This factory will produce 1,500 tons of powdered coffee for export in 1959.

29. *Beverages.* — In the course of the Second Five Year Plan better utilization and increased production have been foreseen in almost all the factories in this industrial branch. On the basis of predicted increased consumption one more brewery will be erected, so that at the end of 1959 the total production of beer will be over 100,000 hectolitres. An increase in production has been foreseen for wines, liqueurs, alcohol, soft drinks, and tedj.

30. *Tobacco Manufacturing.* — After completing and expanding the existing factories, an increase is anticipated in cigarette production from 360 to 500 million in 1959. In addition, in the 1959-1961 period the erection of a new cigarette factory is foreseen.

31. *Textile Industry.* — After finishing the plants under construction and expanding the existing ones, the production of cotton fabrics will increase, according to estimates, from the present 21,5 to 74 million sq. metres. The plan has also forecast production of rayon fabrics in the new factory with a capacity of 1,500 tons. In the main, production of cotton and synthetic fabrics should satisfy domestic needs. The increased production of cotton yarn is partly intended to supply cottage industry, the development of which is also anticipated. Parallel with this, the manufacture of finished goods in the textile industry is being planned, such as knitted wear, hosiery, and blankets. The erection of a new woollen-products factory is planned, which will, among other goods, produce about 270,000 blankets a year and reduce imports. On the basis of domestic raw materials, it is intended to construct a flax-product factory with a capacity of 500 tons yearly, as well as an umbrella factory to produce 100,000 umbrellas yearly. The Plan estimates an increase in the production of sacks and ropes from 2.8 to 6 million pieces, including the production of a new factory of 2,000 tons a year. On the basis of processing musa, a fibre factory, with a capacity of 1,000 tons a year is to be built. Finally, in the textile industry the erection of a

ready-made clothes factory is planned, to supply military and civilian requirements.

32. *Leather and Shoe Industry.* — The present factories for the manufacture of leather and shoes aided by reasonable tariff protection, will be capable in 1959 of producing about 1,000 tons of leather and 650,000 pairs of leather shoes. The erection of new slaughter-houses will contribute to a considerable increase in the production of the leather and shoe industry, so that it has been planned to establish several new leather factories with a total capacity of 7,500 tons of leather, and new leather and shoe factories to produce 5 million pairs. It will be necessary to secure markets abroad for the produce of the leather and shoe industries. To meet the growing demand for shoes on the domestic market the erection of a canvas and rubber shoe factory has been planned whose production in 1959 should reach 1,300,000 pairs.

33. *Wood Industry.* — Wood processing into timber is expected to rise from the present 12,500 cu. m. to 20,000 cu. m. in 1959. This will be attained by utilizing the present capacity of the industry and by constructing a new sawmill. The manufacture of wood finished goods is to be achieved by the production of 3,000 cu. m. of plywood in 1959, as well as by increased production of furniture and other finished wood products. In addition to the existing furniture factories the construction of a new one has been planned.

34. *Building-material and Nonmetal Industry.* — As the result of intensive investment construction which has been forecast by the Second Five Year Plan, the building material industry will expand the existing capacity and erect new factories. Most important is the production of cement, it is therefore intended to complete the factory under construction in Addis Ababa, with a capacity of 70,000 tons and to erect a new factory of 150,000 tons whose production for the most part is intended for export. The production of the new factory for asbestos-cement articles will replace a large part of materials which have been imported in the past. In addition, the erection of new brickyards has been planned with a total capacity of about 20 million bricks, and the new lime factories planned will produce about

5,000 tons of lime annually. The existing capacity of the ceramic industry will be expanded to meet the needs of the domestic market. From 1959 till 1962 a refractory material plant will be built to cover the needs of domestic metallurgy and other industrial branches, and during the same period the erection of an electro-porcelain factory has been planned in order to create conditions for a faster electrification of the country.

35. *Chemical Industry.* — Continuous increase of imports and the many existing basic raw materials suggest a very intensive development of chemical industry during the Second Five Year Plan period. Large quantities of wood justify the production of pulp for the new paper factory with an 8,500 ton capacity, and a viscose factory with a capacity of 12,000 tons. To supply the needs of these factories it has been planned to erect a caustic soda factory (12,000 tons), a carbon bisulfide factory (6,000 tons) and to produce sulphuric acid (20,000 tons). The products of these factories will also serve the needs of other chemical industry plants. One of the largest chemical industry projects will be the oil refinery, which is to refine 500,000 tons of crude oil annually, and whose capacity may later be doubled, especially if there is a domestic production of crude oil. There is a sufficient supply of domestic raw materials to justify the erection of a soap factory of a 6,000 ton capacity. Likewise, the existing domestic raw materials derived from certain varieties of trees, as well as the increased needs of the leather industry, are a basis for the construction of two tanning material factories with a total capacity of 2,000 tons yearly. Deposits of quartz sandstone are a basis for the expansion of the existing glass factories, as well as for the erection of a new factory to manufacture sheet glass, with a capacity of 1 million sq. m. In order to satisfy the basic needs of the domestic market it has been planned to build a pharmaceutical factory, a plastic product factory, and a tyre plant. By the end of the five-year period it has been planned to start construction on several new projects, such as a fertilizer plant, PVC plant, paint factory, one more pharmaceutical and another soap factory, as well as to expand the oil refinery for lubricating-oil production.

36. *Printing and Publishing.* — The domestic needs in this industrial branch will be met by the expansion of the existing plants, and in addition it has been planned to build a printing and publishing plant of a larger capacity than the existing ones.

37. *Steel, Metal, and Electric Industry.* — By securing a domestic supply of iron ore it will be possible by the end of the five-year period to build a steel plant of the forecast capacity of about 80.000 tons. On the basis of this production. and the completed iron works at Akaki. it will be possible to approach a more extensive construction of a metal and electric industry which should satisfy the basic needs of the country with their products. It has been planned to erect an agricultural machine and tool factory. a metal processing plant, a metal construction plant and a household appliance plant. For the initial production of tractors the erection of a tractor assembly plant has been foreseen. and for ship repair and reconstruction in the domestic ports a ship repairing workshop will be built. An aluminium ware factory will be erected. which should meet the needs for domestic utensils and other goods. In the electric industry sector a car battery factory. an electric-installations factory, as well as an electric bulb factory will be built. In order further to expand the metal and electric industry it is planned in 1959 to start the construction of a metal processing plant, a shipyard. an electric motor factory, and an electric wire and cable factory.

38. *New Projects.* — Within the range of the total investment amount it has been planned to expend Eth. $ 353.4 million for new projects, while the remaining Eth. $ 72.5 million are assigned for finishing the projects under construction, and for the reconstruction of existing factories. Out of the 121 projects, 18 are being completed or reconstructed and 103 new projects are planned. The arrangement of all the planned industrial projects — those being reconstructed and finished, as well as the new projects — according to industrial branches is shown in the following table :

Number of Industrial Projects to be Constructed Over the Second Five Year Plan

Branch of Industry	Total	To be completed or reconstructed	New projects.
Food Industry	29	3	26
Beverages	3	1	2
Tobacco Manufacturing	2	1	1
Textile Industry	15	6	9
Leather & Shoe Industry	9	1	8
Wood Industry	3	—	3
Building & Nonmetal Industry	16	3	13
Printing & Publishing	2	1	1
Chemical Industry	22	1	21
Steel, Metal & Electric Industry	16	1	15
Others	4	—	4
Total :	121	18	103

39. The planned construction of the total of 121 projects with an investment expenditure of Eth. $ 425.9 million refers to those projects which will be completed from 1955 to 1959, as well as those which will be finished after 1959. Out of the total 121 projects 94 will be finished in the course of the Second Five Year Plan. with an investment value of Eth. $ 344 million. After 1959, 27 projects will be finished and Eth. $ 81.9 million will be expended for their completion.

Projects to be put into Operation 1955 *to* 1959

Year	Number of projects
1955	3
1956	19
1957	15
1958	24
1959	33
Total :	94

40. The new projects envisaged by the Second Five Year Plan ensure a much wider assortment of industrial products. When these projects are completed, new industrial articles will be manufactured, which were not produced before, such as powdered coffee, fish products, refined edible oil and margarine, woollen fabrics, rayon fabrics, flax products, umbrellas, canvas and rubber shoes, cement-asbestos products, paper, caustic soda, sulphuric acid, tannery material, pharmaceutical products, plastic products, tyres, car batteries, sheet glass, and various sorts of crude oil derivates. In addition, agricultural machines and tools will be produced, as well as metal constructions, various metal articles for the household, electrical installation materials and bulbs.

41. In selecting the new projects for the Second Five Year Plan, it has been kept in view that the newly developed industry should not only satisfy as much as possible the needs of the domestic market, but also strive to ensure a considerable increase in exports. Thus the new projects should increase exportation of frozen and canned meat, refined edible oil, fish products, powdered coffee, leather shoes, cement, bottles, and other industrial products. When the projects are erected, the export capability of industry will be increased to such an extent that exports in 1959 will increase almost eightfold in comparison with 1954.

Measures

42. In order to implement the extensive industrial programme for the Second Five Year Plan, it is necessary to undertake energetic measures to realize all the stages of construction on time. Besides creating favourable conditions for economic development in general, and encouraging industrial activity, the Government Agencies concerned will particularly (a) carry on studies and preparatory work for the construction of the key projects of the industrial programme, (b) secure through public loans and from other sources sufficient means to provide equipment, as well as for construction and experts, (c) undertake appropriate measures with the aim of attracting foreign investors, and encouraging domestic savers to invest in industry,

(d) grant facilities to the new industry in respect of credit and taxes. The Government will also establish new public or semipublic business organizations which will be responsible for implementing the large-scale specific projects.

43. It is to be expected that the Chamber of Commerce will direct its activity in a much larger measure toward industrial development, by attracting domestic and foreign investors to invest in those branches of industry which speed up economic development. The existing industrial enterprises are recommended to expand their capacities and production as conceived by the industrial programme, and reinvest in those branches which are complementary with their present activity.

Chapter 13.

BUILDING AND CONSTRUCTION

1. In the First Five Year Plan building and construction were not considered a separate branch of economic activity. Due to its increasing importance, the Second Five Year Plan provided a separate place for Building and Construction, including it into the Plan under a special heading.

2. The implementation of the investment plan largely depends on new buildings and constructions for industrial, agricultural and other purposes which are to be erected during a certain period of planning. The share of building and construction amounts to 30 to 40 per cent of the total investment. To reduce development expenditure and to achieve a higher efficiency of various programmes, economy in costs of building and construction should be the guiding principle in this activity. Economy must be achieved in all stages of construction, in design as well as execution, by the use of the most appropriate building materials, by adequate control and supervision, etc. This points to the importance of organization both at the level of executive enterprises, and that of Government Agencies.

Recent Development

3. According to available statistical date the value of building works in urban housing reached the amount of Eth. $ 24 million in 1954. On the other hand the value of building and renovation of rural houses, estimated by agricultural experts, is about Eth. $ 20 million per annum. This, of course is mainly building activity in kind performed by the farmers themselves. Civil engineering for various branches of transportation, power, and industry has been very intensive in the last five years. About Eth. $ 54 million on an average have been spent per annum during this period for the construction of highways and for Assab Port and airports. As far as industry, power and mining are concerned approximately Eth. $ 8 million per annum

have been expended for the construction of industrial and other structures. Finally, in various social services (education. public health, etc.) about Eth. $ 6 million have been allocated yearly for buildings. By summarizing all these components of building and construction activity an amount of approximately Eth. $ 112 million has been estimated as the value of building works in the last year of the First Five Year Plan. Out of this total about Eth. $ 15 million have been estimated to be the value of building works in kind. The following table shows the development of basic construction activities expressed in terms of gross value of production:

Gross Value of Production in 1949 *and* 1954

	Thousands of Eth. $		Index
Branches of Construction	1949	1954	(1949 = 100)
Buildings	500	1 500	300
Housing	11 000	23 000	208
Water Resources	2 000	4 500	225
Civil Engineering	20 000	56 400	282
Farm Construction	16 200	20 300	126
Other Construction	3 200	6 100	191
Construction — Total	52 900	111 800	212

Owing to the lack of necessary statistical data the figures shown in the table are of a rather tentative nature, but they nevertheless display the very intensive building activity which was carried out during the First Plan.

Development Targets

6. *Production Targets.* — Regarding the volume and the structure of investment envisaged in the Second Five Year Plan, a fairly high rate of growth of building activity — about 10.4 per cent — is to be expected in the following period. The planned increase of production in various branches of construction may be seen from the following table:

Gross Value of Production in 1954 and 1959

Branches of Construction	Thousands of Eth. $ 1954	 1959	Index (1954 = 100)
Buildings	1 500	15 000	1 000
Housing	23 000	30 000	130
Water Resources	4 500	7 000	156
Civil Engineering	56 400	93 000	165
Farm Construction	20 300	30 000	148
Other Construction	**6 100**	**8 000**	**131**
Construction — Total	111 800	183 000	164

As may be noticed, an important increase of activity in building has been planned in the forthcoming period, which is dictated by very large investment programmes in productive activities (manufacturing industry, transport and communications), and in social and economic services (housing and public buildings for education, public health, etc.). The construction of buildings in 1954 E.C. was exceptionally low, which explains the high increase in the planned gross value of production in 1959. The next largest increase is envisaged in civil engineering works due to the continuation of intensive road construction and the completion of the main airports which have to be undertaken during the Second Plan. The increase in the gross value of housing construction is smaller than realized in the First Plan, but due to the emphasis on low-cost housing projects, the total number of dwellings to be built in the Second Plan will be even larger than in the previous five years. Farm and other construction would be at or about the same level as housing.

7. The improvement in organization of the building and construction firms, as well as the Ethiopianization of building activity in the country are important tasks which have to be carried out. With this in view, two Ethiopian construction enterprises have to be established, one for roads and other civil engineering works, and the other for housing and other buildings. Domestic enterprises should play an important role on the building market of Ethiopia, help to reduce building and construction costs and improve the quality of the work.

8. In order to secure the implementation of targets during the Second Five Year Plan, Eth. $ 9.0 million are assigned to equip the new Ethiopian building and construction enterprises.

9. *Scientific Research.* — Scientific research is actually the basis and beginning of all technical and other progress, and there is substantial need for an organization of scientific and technical research in building. At present a modest but well organized Material and Soils Testing Section exists within the Building College, but its main task is to serve educational purposes. There is a need for a Building Research Station at the Ministry of Public Works to deal with the promotion of building activity in Ethiopia. The Station should, in particular, carry out surveys and research concerning:

(*a*) the availability of raw materials for the building materials industry;

(*b*) the promotion of building techniques;

(*c*) the preparation of rules, regulations, technical standards, technical prescriptions, recommendations and instructions concerning building and civil engineering activities;

(*d*) the dissemination of technical knowledge by booklets, leaflets, lectures, films, seminars, special post-graduate courses etc.;

(*e*) the testing of materials and constructions, as well as the material and raw materials for preparation and building.

10. *Building Materials.* — In the coming period construction will require a well co-ordinated development of industries that produce building materials. Construction firms should influence the production programmes of the building material producers and standards of industrial products which are used in building activities should be introduced. Increased collaboration and extensive inspection by responsible authorities, is a further justification for the setting up of the proposed Building Research Station. The existing industrial undertakings which produce building materials do not satisfy the present needs and many materials are imported (cement, bricks, timber, tar and bitumen, steel, glass, etc.). The future development of Ethiopian industry will turn toward a gradual decrease in imported building

materials with the aim of eventually eliminating the unnecessary import of many of them.

11. *Low Cost Housing.* — Special attention is to be paid to the technical problems of low-cost housing, i.e., to a well elaborated scheme of aided self-help construction. The Government, through the Research Station, should extend its assistance in various forms, such as designs for modest standardized housing projects based on the use of local materials, instructions concerning required technical standards, supply of provincial instructors to assist the people in building, etc. The Research Station should also fully extend its technical assistance to solving the problems of some basic communal facilities, for instance, roads, water supply, sewerage, electricity, etc.

Organizational Measures

12. Although building activity in the country has considerably increased (at present it makes up about 35 per cent of the total investments), a well organized building sector in Ethiopia is still lacking. The technical department of the Ministry of Public Works for Public Buildings has to be further developed in order to be able to meet the ever growing needs in this field, particularly concerning designing and supervision. There is a great need to rebuild the organization of the Ministry of Public Works and Communications in order to enable it to carry out efficiently these responsible tasks. To this end the following requirements appear particularly important:

(*a*) To enable the Ministry to concentrate fully on building it is necessary to exclude from the Ministry other activities, such as transport and communication, not related directly to the fields it has exclusively to deal with.

(*b*) Due to its importance, as well as to the need for making it more operational, water resources should be organized as a separate agency under the auspices of the Ministry;

(*c*) The Technical Department (Public Buildings) will have to be enlarged and entrusted with elaboration of projects and designs, as well as the control and supervision of building works executed throughout the country. Therefore, as a network of outposts of the

Ministry of Public Works, Provincial Technical Sections will have to be created.

(*d*) The entire field of physical planning, town planning as well as rural planning, should be concentrated in the Ministry of Public Works, because this activity is the basis for every building and construction.

(*e*) the registration of designing and consulting firms at the Ministry of Commerce and Industry should be achieved by the provision that the Ministry of Public Works shall be authorized to issue licences, since the activity of these firms is for the most part connected with construction.

13. It is highly desirable to extend the influence, activity, and responsibility of the Ministry of Public Works all over the country. At present the Ministry of Public Works' Technical Department is concentrated in the capital and has no branches in the provinces which could handle local problems and needs. Exceptionally inspectors supervise the construction of several important public buildings outside Addis Ababa, but they cannot be considered a permanent field staff. Regional or Provincial Public Building Sections, subordinated to the Ministry, will have to be created, and they have to remain independent to a certain degree, and be authorized to deal with and solve the local problems concerning public buildings such as supervision, control, and later even design or execution of some works. Provincial sections could also be charged with some administrative tasks, such as issuing permits for buildings, taking care that the regional and town planning in respected, etc.

14. *Contractors.* — There is a need to train young Ethiopian engineers, architects and technicians in order to qualify them to organize and expand the Ethiopian operative organizations for design and construction. As there is already a good start in the existing Engineering College as well as in the Ethio-Swedish Building College and Building Center, to achieve this aim it will be necessary:

(*a*) to give more support and assistance to the Ethio-Swedish Building Center which makes efforts to train the young graduates of the Building College to become future building contractors, as well as to train skilled workmen;

(*b*) to send young graduates from both the Building and Engineering Colleges to gain practical knowledge in various designing and building organizations in the country as well as abroad. Scholarships or fellowships from the United Nations Technical Assistance Administration, as well as those granted by Ethiopian or friendly foreign Governments, may be of much help in this respect.

15. *Designing.* — At present most of the designing work is done by foreign consulting firms, while a smaller and less important part of the designing is carried out by the Technical Department of the Ministry of Public Works. The charges of the consulting firms are considerable and the greatest part is remitted abroad. It is important, therefore, that the Ministry's Technical Department (Design Section) be developed and in all respects properly equipped and staffed with well trained personnel, so as to be able to undertake the tasks of working out the designs for the increasing number of public buildings. The Design Section should be gradually extended to become an architectural and civil engineering, designing and consulting firm, or even a group of several consulting firms specialized in different fields of designing activity.

Legislation

For the time being there is an almost complete lack of technical codes, rules, regulations and similar technical legislation. One of the main and most urgent tasks of the Ministry of Public Works is to issue, or to prepare and submit to the higher authorities, drafts of technical codes, rules, regulations, instructions and recommendation concerning:

(*a*) the preparatory phase of building and the investment process, elaboration of techno-economic documentation, its revision and approval, completeness of designs and their co-ordination with the programme requirements, instructions for the designers, difinition of a complete design with all the necessary drawings and documents, etc.;

(*b*) designing and building, among the many things to be regulated in these fields only the main ones will be listed;

(i) regulations concerning the authorization to make designs i.e., the conditions to be fulfilled to be a chartered Architect, Engineer, Technician, Geometer, conditions to establish and operate a consulting firm;

(ii) regulations concerning obligatory issuing of licences to Consulting and Designing firms by the Ministry of Public Works;

(iii) regulations limiting fees for services rendered by the Designing and Consulting Firms;

(iv) technical rules, recommendations, and instructions for calculation and construction, permissible loads, permissible stresses, safety factors, soil testing materials, constructions, the required minimum of the quality of building materials and constructions;

(v) regulations concerning the compulsory content of technical elaboration (the project, design, tender-documents, details, etc.);

(vi) ordinance on the procedure and conditions for obtaining permits for buildings, concerning the town planning aspects, control of compliance with the current Annual Plan of Economic Development, approval that the design is economically and technically accurate and recommendable;

(vii) ordinance on the revision and approval of technical documentation of Public Buildings;

(viii) establishment of a Commission for Revision and Approval of Investment Projects as well as a Commission for Revision and Approval of Designs.

(ix) legislation concerning the following services: town and rural planning and the final approval of an investment project to be executed according to the current annual plan. Control and supervision are to be performed by the responsible Government and Municipality Agencies, according to the legislation stated above.

Chapter 14.

HANDICRAFTS AND COTTAGE INDUSTRY

Recent Development

1. The basic tasks which were set for the handicrafts and cottage industry in the First Five Year Plan were, in the main, implemented, and the handicrafts and cottage industry have gained a definite place in the economic development of the country. A steady development of the economy by itself induced the development of these branches, and the fact that industrial products in the past period could not penetrate into all parts of the country, left a large part to be supplied exclusively by handicrafts and the cottage industry.

2. For this reason the handicrafts and cottage industry constituted, during the First Five Year Plan, a relatively important production sector with the gross value of production reaching an amount of Eth. $ 88 million in 1954. Such a big output is also the result of the large number of persons employed, estimated to be about 186,000 in 1954. The significance of handicrafts and cottage industry was demonstrated by their ability to supply many needs on the domestic market which industry did not cover, in particular certain textile products, footwear, agricultural tools, utensils and other articles.

3. The development of the handicrafts and cottage industry during the First Five Year Plan was very intensive in the cities and larger settlements, due to a faster growth of income, as well as to an enlarged area of operation over which this industry had to extend. The expansion was especially apparent in certain kinds of handicrafts, such as building handicrafts (masons, carpenters, locksmiths, and in large towns all kinds of installers, tinsmiths, painters and others) and in some servicing handicrafts, which develop faster in cities (tailors, shoemakers, bakers, barbers and others). The development of handicrafts and cottage industry in the smaller towns inclined towards crafts such as weavers, blacksmitths, well-diggers, barbers and others.

4. Certain organizational measures to advance handicrafts and to train personnel were partially undertaken in several larger

towns such as Addis Ababa, Asmara, Dessie, Dire Dawa and others. These measures were intended mainly to train personnel for certain kinds of crafts such as carpet making, weaving, coppersmith crafts, woodworking, mechanical repair work etc. and, in addition, to encourage the development of the handicrafts necessary in other towns.

Production Targets

5. It is planned in the Second Five Year Plan to continue and speed up the development of the handicrafts and cottage industry, so that they will be able to carry out the wider requirements of a developing economy. Handicrafts and cottage industry will, in the first place, have to meet the needs of the domestic market by offering standard craft products, as well as by extending handicraft services. In addition, this branch of the economy will, by faster development, have to train a larger number of qualified and semiqualified workers, who will gradually meet the growing needs of industry.

6. Favourable conditions for the development of handicraft and cottage industry in the fortheoming period will be created by the more intensive development of those industrial branches which also provide raw materials for handicrafts. The textile industry will supply more cotton yarn, coarse fibres, and all kinds of fabrics for the manufacture of clothes, shirts and underwear, the leather industry will ensure larger quantities and a wider assortment of various kinds of leather for footwear and leather goods, and the steel industry, by producing sheet iron, section iron, bands and wire, will also be able to supply the needs of many handicrafts. The industrial production of certain nonmetal raw materials (e.g. clay, cement and asbestos) will also provide necessary processing supplies to handicrafts.

7. The rapid development of towns and the intensive building activity which are forecast by the Second Five Year Plan, set new and extensive tasks before handicrafts. An intensive increase is therefore anticipated in those craftsmen who are indispensable for the carrying on of extensive building activity, such as masons, carpenters, installers, painters, tinsmiths, ceramic tile layers, locksmiths, etc. In addition to the increase in the number of craftsmen, a need will also arise in the towns for combined service shops for house

maintenance, repair of installations and other combined handicraft services.

8. A higher living standard and the expansion of towns and settlements will not only call for a further development of the existing handicraft services, but also for new ones, which will be needed to meet the demand in the coming period (services provided by tailors, shoemakers, barbers, butchers, bakers etc.).

9. It is estimated that the value of handicrafts and cottage industry production will reach Eth. $ 107 million in 1959, an increase of 21.5 per cent over the value in 1954. This growth of producition value in handicrafts and cottage industry will be realized not only by an increase in the number of employed persons, but also by improved equipment, appliances and tools, as well as by a wider assortment and larger quantities of raw materials, which will be supplied by the domestic industry.

Investment and Employment

10. The Second Five Year Plan provides for an investment of Eth. $ 5 million for the development and better equipment of handicrafts and cottage industry. Out of this, Eth. $ 4.5 million will be spent for the purchase of equipment, and the remainder will be invested in construction works. The amount foreseen to be invested in equipment will be expended on supplying handicrafts and cottage industry with better and more up-to-date equipment, implements and tools. This will create favourable general conditions for work and development in handicrafts by lowering the costs and improving the quality of the handicraft products and services.

11. The envisaged expansion of the volume and variety of handicraft and cottage industry production, as well as of investment requirements, will call for an increase in the number of persons employed. It is planned that in 1959 the number of persons employed will reach 220,000 as against 186,000 in 1954. It is of utmost importance to provide handicrafts and cottage industry with more qualified personnel, and this has to be achieved by educating the craftsmen and training them technically in handicraft schools, schools for apprentices, by providing various courses, and by other methods. In order to ensure the planned pace and line of development it will be necessary, in the course of the next few years, to introduce further measures, such as the compulsory registration of craftsmen and their apprentices, and the laying down of standard qualifications and technical skill required for particular handicrafts.

Chapter 15.

TRANSPORT AND COMMUNICATIONS

Recent Development

1. In the First Five Year Plan particular attention was paid to the development of transport and communications with the aim of opening up promising economic regions and enabling them to reach the local and foreign markets, and also of linking different provincial centres with the capital of the country. Taking into consideration the needs and the possibilities for the development of individual branches of transport and communications, the First Plan had emphasized such targets as the construction and maintenance of all-weather roads, the import of motor vehicles, the development of domestic and international air transport and the enlargement and equipping of Assab Port. The development of telecommunications has been intensive during the period. The fact that Eth. $ 240 millions, or 45 per cent of total monetary investment outlays in the years 1949-1954 were appropriated for the development of transport and communications indicates the priority given to this economic sector under the First Five Year Plan.

2. The development of the various branches of transport and communications can be shown by the increase in the gross value of production over the last five years :

Gross Value of Production in 1949 *and* 1954

Branches of transport and communications	Thousands of Eth. $ 1949	Thousands of Eth. $ 1954	Index 1949=100
Railways	12 400	14 300	115
Road Transport	82 300	120 000	146
Air Transport	13 400	27 900	207
Water Transport	9 000	10 400	116
City Traffic	2 500	10 100	405
Transport Total	119 600	182 700	154
Posts	1 500	2 000	133
Telecommunications	4 300	6 600	154
Communications Total	5 800	8 600	148
GRAND TOTAL — Transport & Communications	125 400	191 300	153

As shown, city traffic was the most progressive and quadrupled in the last five years; during the same period air transport more than doubled, and road transport increased by 46 per cent, but the development of railways and water transport (port traffic) was much slower. Telecommunications have shown a very significant progress. In Postal Traffic the number of letters is increasing greatly but the number of parcels is on the decline.

3 The activity of various branches of transport and communications was undoubtedly influenced by the way their work was organized, but was basically determined by the investments that were made in the course of the First Five Year Plan.

Investment in Transport and Communications
1949 - 1954

Branches of Transport and Communications	Thousands of Eth.$ Plan	Fulfilled	% of fulfilment
Railways	9 000	7 000	77.8
Road Transport	75 000	127 800	170.0
Air Transport	47 500	47 600	100.5
Water Transport	28 500	26 900	94.5
City Traffic	10 000	8 000	80.0
Transport Total	170 000	217 300	128.0
Telecommunications	10 000	10 000	100.0
Communications — Total	10 000	10 000	100.0
GRAND TOTAL — Transport & Communications	180 000 1)	227 300	126.0

4. Taken as a whole, transport and communications have made remarkable progress in the 1949-1954 period, although not all the targets set by the First Five Year Plan were achieved. The development of transport and communications as a whole in the period has actually been of an unsteady and haphazard character. Large investments in the construction and maintenance of the road network, which surpassed the originally planned investments by 70 per cent, and the

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1) In fact, Eth. $ 240 million had been planned, but this figure included about Eth. $ 60 million for the maintenance of all-weather roads, an amount which should not be considered as an investment.

intensive import of motor vehicles have resulted in a considerable increase of road transport. On the other hand, the planned investments in railways were not realized and, consequently, in railway traffic no visible progress was achieved. The construction of Assab Port is one of the most important projects realized in the First Five Year Plan and provides the opportunity for the development of Ethiopian shipping and port traffic.

Development Targets

5. A further development of transport and communications at an average of 7.1 per cent annually is envisaged in this Plan. This rate of growth of transport and communications is about twice the rate of development of the whole economy which has been estimated to be at an average of 4 per cent annually. The increase in the transport and communications services is planned in accordance with the requirements arising from the anticipated expansion of industrial production, marketable agriculture surpluses, and the volume of trade.

(a) A considerably larger demand for transport facilities makes it necessary during the Second Five Year Plan to pay due attention to a better co-ordination in the development of the various branches of passenger and freight transport, so as to increase efficiency in utilizing fixed assets in transport and communications. In this sense the principle of linking road transport to shipping and utilizing the existing ports, as well as of linking road transport to lake transport, and of developing river transport in the southwestern part of the country, is important in the development of the network.

Emphasis, in the expansion of the existing road network during the Second Five Year Plan, should therefore be laid on those roads which not only have a dominant but also a co-ordinating role. It will be necessary, even in the Second Five Year Plan, to start intensive surveys and to design new railway tracks which will in the future have to play a much more significant role. It will also be necessary to follow closely the trend of technical progress in railway transport, since there are signs that significant innovations are likely in this branch of transport.

(b) In the course of the Second Five Year Plan it will be necessary to continue road construction so that new regions can be opened for economic development during subsequent plans. It will also be necessary to intensify the construction of new roads, particularly towards the east, from Addis Ababa to Awash Station and to Assab (via Tendaho), and in the south-westerly direction.

(c) Beside the improvement of the existing railways it will be necessary to begin larger-scale studies concerning the construction of new railway lines which should, in a long-term programme, make possible the transportation of the considerably greater quantities of freight arising from agriculture, mining, and industrial production.

(d) It will be necessary to finish the construction of airports already started and complete the purchase of jet planes according to arrangements made. Special care should be taken to solve problems with regard to the exploitation of sea ports, and in particular of Assab Port.

(e) The development targets for various branches which will have to meet the requirements of the economy during the Second Five Year Plan are shown by the increase of the gross value of production :

Gross Value of Production in 1954 and 1959

Branches of Transport and Communications	Thousands of Eth. $ 1954	1959	Index (1954=100)
Railways	14 300	16 700	117
Road Transport	120 000	170 000	142
Air Transport	27 900	41 300	148
Water Transport	10 400	15 000	144
City Traffic	10 100	13 100	130
Transport Total	182 700	256 100	140
Posts	2 000	3 200	160
Telecommunications	6 600	9 600	145
Communications — Total	8 600	12 800	149
GRAND TOTAL — Transport & Communications	191 300	268 900	141

Investment

6. *General Features of the Investment Policy.* — **Investment** in transport and communications during the Second Five Year will

have to secure a planned development of the various branches and of this economic section as a whole. The total amount of investment planned for 1955-1959, in comparison with the previous 1950-1954 period, as well as their breakdown into the main branches is given in the following table :

Investments in the Second Five Year Plan

	Thousands of Eth.$		Percentage		Index
	Actuals 1949-54	Planned 1955-59	1949-1954	1955-1959	1949-54
Railways	7 000	10 000	3.1	3.2	143
Road Transport	127 800 1)	155 600	56.2	49.2	122
Water Transport	26 900 2)	24 163	11.8	7.6	90
Air Transport	47 600	89 153	21.0	28.2	187
City Traffic	8 000	6 000	3.5	1.9	75
Transport Total	217 300	284 916	95.6	90.1	131
Posts	—	5 000	—	1.6	—
Telecommunications	10 000	26 500	4.4	8.3	265
Posts & Telecommunications Total	10 000	31 500	4.4	9.9	315
GRAND TOTAL	227 300	316 416	100	100	139

7. The total investments are estimated at Eth. $ 316.4 million, 39 per cent more that the investment made in the First Five Year Plan. The investments in transport should increase by 31 per cent, and in communications by 215 per cent, so that the share of communications in the total investment of transport and communications together will increase from 4.4 per cent in the years 1940-1954 to almost 10 per cent in the next five-year period. Such a high increase of investments in communications is planned with regard to the forthcoming reorganization of the posts, i.e., their transfer from budgetary financing to self-financing, as well as because, both on the domestic and international fields there is a demand for a faster development of telecommunications.

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1) Road maintenance of about Eth. $ 60 million excluded; but the purchase of motor vehicles for Eth. $ 37.6 million is included.

2) Assab Port construction costs of Eth. $ 26.1 million included.

8. The particularly high increase of investments envisaged in air transport is necessary to carry out the programme of introducing jet air transport into Ethiopian Airlines.

9. In water transport provisions are made for Eth. $ 24.2 million of investment, which is 10 per cent less than the outlay made in the previous five years. However, an important change in the structure of investments will have to be brought about, since in the First Five Year Plan, out of Eth. $ 26.9 million investment in water transport Eth. $ 26.1 million went for the construction of Assab Port. In the Second Five Year Plan comparatively high investments in this branch of transport are anticipated, but this time the bulk of investments is resigned to the development of an Ethiopian sea-shipping company which will directly contribute to the growth of water transport,

10. Road transport, as the most developed branch of transport in Ethiopia,will be allocated about 50 per cent of the total investment in transport and communications under the Second Five Year Plan. Compared with the First Five Year Plan investment in road transport shows an increase of 22 per cent.

11. Investment in railways has to provide for the maintenance of the existing railway tracks, while a considerable part of investment (about 30 per cent) will be spent on survey and designing of the further development of the railway network in Ethiopia to meet the needs of the planned development of the Ethiopian economy.

12. Investment in the city traffic of Addis Ababa is smaller than in the First Five Year Plan, due to the fact that the main streets and squares have already been built in the previous period so that such high investments will not be necessary for this purpose. Here, also, a change in the structure of investment outlays takes place, emphasizing projects dealing with physical city planning. Modern development of city traffic will contribute to the harmonized development of city traffic in Addis Ababa.

13. Changes in the technical structure of investments are characteristic of the investment policy in the Second Fife Year Plan:

	Millions of Eth. $ Actual 1949-54	Millions of Eth. $ Planned 1955-59	Percentage 1949-1954	Percentage 1955-1959	Index (1949-54 = 100)
Studies & Prospecting	8.0	18.0	3.5	5.8	225
Land	5.0	12.3	2.2	3.9	247
Building	123.2	127.8	54.2	40.3	104
Equipment	49.1	123.7	21.6	39.0	252
Motor Vehicles	40.0	20.0	17.6	6.3	50
Others	2.0	14.7	0.9	4.7	735
TOTAL	227.3	316.4	100	100	139

Priority in the investment policy is given to the development of the more productive branches of transport, such as air transport, shipping, and road transport, by promoting the greatest increase of investment for equipment (jets, cargo ships, tankers, PTT equipment), and for land transport (expansion of the road network, airports etc.). The existing stock of motor vehicles does not require as intensive an investment as in the previous period. Studies and prospecting are also given emphasis in the Second Plan, since they are of the utmost importance in laying a foundation for a longer-term policy in the development of transport and communications in Ethiopia.

14. The bulk of the investment outlay will have to be concentrated in the course of the first two years. It is estimated that out of the total investment planned for the next five years, 38 per cent will have to be effectuated in the first year, and some three fifths in the first two years of the Second Plan.

Such concentration of investment is caused mainly by the completion of the Jet Programme in 1955 and 1956, and by the completion of certain roads under the Second Highway Programme. In the subsequent years the intensity of investment gradually decreases from 20.8 per cent in 1956 to 11.6 per cent in 1959.

15. The relation between domestic and foreign sources is estimated at 43: 57 which is approximately the same as in the First Five Year Plan. It is important to note that the budgetary amount is estimated at only Eth. $ 53.4 million, or about 17 per cent of the total investment, while in the First Five Year Plan the budget share was Eth. $ 84.5 million, or 35.3 per cent of the total investment. The

Second Five Year Plan has stressed to a much greater extent Bank Loans and independent funds as sources for financing the programme of investment. These two sources, together with the investments in kind, amount to Eth. $ 70.2 million, or 22.3 per cent of the total investment, compared with Eth. $ 19.0 million or only 7.9 per cent in the First Five Year Plan, and this change should be considered to be a very positive trend. This trend in financing is particularly noticeable in the road transport plan for the construction of main and feeder roads and the purchase of motor vehicles. Furthermore, after the reorganization of posts is carried out, an intensive self-financing of investments in communications is to be expected. Financing from foreign sources is needed for the construction of certain roads and for the Jet Programme.

Transport

16. *Road Transport.* — The total road transport in 1953 amounted to about 593,000 vehicle-kilometres per day. This traffic was carried on a road network of 4,738 kms. of all-weather roads, with a total number of operating motor vehicles amounting to approximately 16,000. These were the basic facts from which planning of the development of road transport in the Second Five Year Plan started.

17. Construction and maintenance of the road network should continue to develop in order to satisfy the fast growing needs of the economy. In addition to the completion of about 490 km. of roads under construction according to the Second Highway Programme, the construction of about 800 kms. of new main roads and about 1,000 kms. of feeder roads is anticipated.

The following are the main lines which are to underscore the programme of development of the all-weather road network for the Second Five Year Plan:

(*a*) to complete the road construction remaining from the Second Highway Programme (in the length of about 490 km.):

(*b*) to open access to the most productive coffee areas in the Provinces of Ilubabor and Wollega by constructing roads for which foreign funds are already secured (Agaro-Gore and Lekempt-Ghimbi, 211 km. in length);

(*c*) to connect the existing network in the Province of Harrar with the main country's road network (Nazareth-Awash-Miesso, about 208 km.);

(*d*) to open for economic development new promising regions such as the Awash and Wabi Shebelli Valleys (80 km. of the road Awash-Tendaho to be constructed, and the survey and design of the Awash-Cumbi road, entering into the Wabi Shebelli Valley);

(*e*) to enable the Government to intervene in other regions of the country by constructing new all-weather roads for the economic development and other reasons (a length of about 300 km. of roads has to be constructed during the Second Five Year Plan);

(*f*) to design roads on the basis of adequate technical standards, with regard to the usually accepted classification of roads and in such a manner to render possible the most rational use of the available means.

18. Particular attention has to be devoted in the Second Five Year Plan to the construction of provincial and feeder roads as well as of bridges for the roads. In addition to the adequate organization which the Government will have to set up to extend technical assistance to the provinces while constructing these roads (designing assistance in technical personnel, supervision of construction, providing the necessary machinery etc.) the provinces themselves, by collecing contributions in money and in kind (man power, building materials, etc.) will also have to participate in constructing the provincial and feeder roads on their territory. Thus it will be possible to build the planned 1,000 km. of feeder roads.

19. The selection of road projects and their designing should be entrusted to the Ministry of Public Works and Communications. The designing of feeder roads and the organization of their construction should be decentralized and carried out through the Provincial Roads Division of the Imperial Highway Authority in the provinces. The construction of feeder roads should mainly rely upon local resources, both financial and in respect of building materials and labour force. The study and later the application of soil-stabilization (mechanical, chemical, cement, bitumen and similar) should be introduced in the feeder-road programme. Maintenance of the secondary and feeder

roads should be further decentralized and organized by provinces. In principle, road maintenance has to be organized in such a way as to employ as much as possible the available domestic manpower.

20. The import of motor vehicles for commercial purposes should be placed under the control of the Ministry of Communications, because lack of control in the past has brought about a series of insoluble problems in road transport. By controlling import, a certain unification of the vehicles could be effected and the import firms would be obliged to keep necessary supplies of spare parts in stock. It will be important to avoid all unnecessary imports of vehicles, and to this end the Government expenditure on importing vehicles should be restricted and an efficient control of the use of this expenditure should be introduced.

21. In order to establish an efficient organization which will provide a steady promotion of bus transport in the country, it is necessary to put into effect the decision made concerning the organization of bus transport, by gradually establishing one bus enterprise for the whole country with a sufficient number of branch offices.

22. Road freight transportation should be promoted by (a) technical control of vehicles, (b) a tendency toward technically more uniform vehicles, (c) encouraging individual owners of trucks to organize, and (d) by establishing enterprises which will gradually create more stable relations in the field of road transport services. This will lead to an economic level of transport tariffs, which should be regulated by the Ministry of Public Works and Communications.

23. In order to improve traffic security it is necessary to organize a patrol service in the traffic police department, and to provide technical control of vehicles on the main roads to enforce respect of traffic rules.

24. *Railway Transport* is carried out on two narrow-gauge tracks with a total length of 1,087 kms. (Djibouti-Addis Ababa 781 kms. of track, gauge 1,000 mm., and Massawa-Asmara-Agordat 306 kms. of track, gauge 950 mm..). The total transport of freight on both lines reached in 1953 E.C. 463,000 tons, or 191.2 million ton-kilometres,

and 700,000 passengers, or 65.8 million passenger-kilometres. The First Five Year Plan envisaged the investments in railways, out of private funds of the Franco-Ethiopian Railways, to amount to Eth. $ 9 million. This sum was intended for the renewal of the rolling stock (Eth. $ 3 million) and for surveys and designs for the expansion of the railway network. No investment has been planned for the railway in Eritrea (Massawa-Asmara-Agordat).

25. Taking into consideration the significant changes which took place toward the end of the First Five Year Plan in the status of the company which operates the railway Djibouti-Addis Ababa (the Government holding 50 per cent of the shares) and considering the critical state of the track in Eritrea, it will be necessary in the next Five Year Plan to provide investment which will maintain the existing capacity of the railways, and also be able to satisfy the need for growth of railway transport anticipated for the next five years. The required investment in the railway Djibouti- Addis Ababa will be financed out of the Company's funds, while for the railway Massawa-Agordat it will be necessary to provide the funds in the budget. For this purpose an amount of Eth. $ 7 million has been planned for the investment programme.

27. Considering the long-term development targets for industry, mining, and agriculture, a need will arise for the construction of new railway lines. It will be necessary, therefore, even in the Second Five Year Plan, to survey and to plan the expansion of the existing railway network in the direction of Nazareth-Dilla, Agordat-Tesseney and particularly the line Awash-Tendaho-Assab. For this purpose the investment programme for the Second Five Year Plan has allocated the sum of Eth. $ 3 million.

27. *Air Transport.* — At the end of the First Five Year Plan Ethiopia already had fifteen years of experience in air transportation on domestic and international lines. Investment to the amount of Eth. $ 47.5 million for civil aviation was planned in the First Five Year Plan, Eth. $ 15.5 million for airport construction, and Eth. $ 32.0 million to purchase aircraft. By the end of the First Five Year Plan a decision was taken to introduce jet planes into the international air transport of the national carrier. In this connexion it was decided

also to build a new airport in Addis Ababa and enlarge the airport in Asmara to make them fit for jet air transport. The necessary additional funds were provided from foreign loans, and the projects are under way. The sum of about Eth. $ 89.1 million out of the total required by this programme will have to be available in the first and second years of the Second Five Year Plan.

28. In addition to completing the "Jet Programme", the Second Five Year Plan lays emphasis on the promotion of internal air transport. The airports for domestic transport must be gradually improved to enable them to handle all kinds of propeller driven aircraft and smaller jet planes, and to be used throughout the whole year. Old type aircraft should be replaced by modern airplanes, even if they are second-hand. In order to improve the utilization of the airport services is will be necessary to commercialize them by making them self-supporting organizations, instead of retaining the current budgetary administration.

29. *Sea transport.* — For many centuries Ethiopia was landlocked and an outlet to the sea was denied to her. Not until the Eritrean Federation with Ethiopia in 1952 G.C. were Ethiopian Maritime activities started again. Having now about 900 kms. of seacoast along the Red Sea, situated on one of the main shipping routes of the world, with two good sea ports, Ethiopia has many possibilities for shipping and port traffic development, from which the whole national economy would greatly benefit. The First Five Year Plan set as one of the main tasks in this branch of transport and communication the expansion and equipping of Assab Port, which has been carried out successfully through the investment of the significant amount of Eth. $ 26.1 million. An initial purchase of ships for sea transport valued at Eth. $ 4.5 million had also been planned but this was only partly implemented. In the planned training of personnel only modest results have been achieved.

30. After the main investment tasks in the First Five Year Plan have been fulfilled, steps must be undertaken for further development in order to reap full benefits from the past investment as well as for future possibilities. In the course of the First Five Year Plan problems had already arisen in the proper utilization of

Ethiopian sea ports, particularly Assab Port. The capacity of Ethiopian harbours had been estimated to be about 1.6 million tons a year. A great part of Ethiopian foreign trade traffic goes through the newly constructed Assab Port and is in a large measure dependent on road traffic, so that the problem of a more economic connexion of Assab Port with the developing hinterland will have to be solved in the forthcoming period.

31. The remaining projects which have to be carried out in the Second Five Year Plan, are the following:

(*a*) To develop in the port of Massawa, and even more so in the port of Assab, better port facilities (faster handling of cargo, modern docking and repair facilities, safe navigation by day and night, fresh water supply, stores and provisions, etc.) in order to attract more shipping and cargoes.

(*b*) To form the Ethiopian Shipping Line through the purchase of dry cargo ships and tankers, or until such time as this becomes possible, to start operating with chartered cargo ships.

(*c*) To carry out certain urgent construction projects (workshops, lighthouses, flats, etc.).

(*d*) To work out and start the implementation of a programme for training sea-going and other technical and administrative personnel.

32. *Lake transport.* — Of the numerous Ethiopian lakes, only Lake Tana has organized public transport facilities. Smaller harbours and lighthouses for day and night trafic have been built. In connexion with the development of Bahar Dar and other settlements on the coast of Lake Tana, further development and promotion of transport on this lake is being planned. This must be speeded up by the initiative of an enterprise which should be established, under whose management the available equipment and ships will have to be placed. In addition to this, it is intended to open up traffic in connexion with the development of fishing in Abaye Lake in the Second Five Year Plan, and to construct roads to connect this region with the existing road network. To secure this development of lake transport in the next Plan the amount of Eth. $ 800,000 is provided as investment.

33. *River transport.* — In Ethiopia there is river traffic only on the Baro River in the southwestern part of the country with the centre at Gambella. From here small motor craft sail on the river as far as its mouth on the White Nile near the town of Malakal (Sudan) and continue along the White Nile to Kosti. The River Navigation Service of Sudan Railways maintains transport between Kosti and Gambella, so that along this route one part of Ethiopian foreign trade traffic is carried on with the Sudan. Considering the undeveloped road network in the Gambella and Gore region, which is a large producer of coffee, it will be necessary to examine the possibilities of developing river transport on the rivers Baro, Omo and Gogeb, and of integrating it into the local transport plan for coffee from the centres of production to the main roads for further transportation, and possibly exportation. It is also necessary to study the possibilities for the development of river transport in the southeastern part of the country on the Djuba and Wabi Shebelli rivers.

34. *City Traffic in Addis Ababa.* — The position of Addis Ababa as the capital and largest city of the Ethiopian Empire makes necessary the planned development of city traffic. City traffic in Addis Ababa is heavily overcrowded as can be seen from the fact that during 1953, 49 buses had to transport some 12 million passengers covering 2.2 million vehicle-kilometres. The First Five Year Plan foresaw investment to an amount of Eth. $ 10 million for the construction of streets, and for introducing trolley-bus transport. Although considerable progress had been made during the First Five Year Plan in constructing streets and squares, the introduction of trolley-bus transportation has been postponed. Because of the configuration of the terrain in the city itself and an abundance of electric power and in view of the growing demand for city transport, the introduction of trolley buses appears to be justified on economic grounds, and would contribute greatly to the release of the overcrowded city traffic. Considering the high rate of development of Addis Ababa and its traffic, it will be necessary in the Second Plan to concentrate on the accomplishment of the following tasks:

(*a*) To work out an urban plan to unburden the present town centre by creating new town centres.

(*b*) Gradually to build an encircling road to connect the main lines of transport which meet in the centres of the town.

(*c*) On the basis of surveys, including those already worked out, to introduce trolley-bus transportation and its combination with the autobus transport and suburban traffic, and to take a final decision and start the implementation of the accepted programme.

(*d*) Gradually to construct traffic devices (traffic lights, signals, signs and inscriptions) as well as bus stations, parking spaces and street illumination.

The financial means for these investments will have to be provided by the municipal budget, and out of the income of municipal enterprises in the first place, supported by state allotments.

Posts and Telecommunications

35. Until 1952 (G. C.) posts, telegraph and telephones were united within the P.T.T. Ministry. Telecommunications were separated from the P.T.T. Ministry as a self-supporting public agency, and in order to control and co-ordinate its activities the Imperial Board of Telecommunications was established. From then on, in the course of the past ten years, telecommunications have developed successfully, while the posts, operating on the principle of a budgetary administration, fell behind considerably in activity and development.

36. *Postal Traffic.* — The entire postal service is financed out of the State Budget to the amount of Eth. $ 1.2 million annually. The revenue of the posts is larger than the expenditure, which indicates that the posts can be financially self-supporting. In the First Five Year Plan no investment for the development of the postal service had been planned.

37. It will be necessary over the following five years to improve the Ethiopian posts and raise them to the level of the other advanced branches of transport and communications. To attain this aim it will be necessary to reorganize the posts on the principle of financial self-support. By an adequate investment policy a steady progress of the postal service should be secured, aiming at its gradual penetration into the remote parts of the country, and to this end the postal services should subsequently introduce their own means of transportation

(postal buses and trucks). Considering the insufficient number of post offices in Addis Ababa it would be desirable to erect a new modern equipped building for the Central Post Office.

38. *Telecommunications.* – The organization of telecommunications covers the whole country and has its regional branch offices in Addis Ababa, Asmara, Dire Dawa, Jimma, Dessie and Gondar. The First Five Year Plan anticipated investments of Eth. $ 10 million for the development and promotion of telecommunications and this was provided in full. Ethiopian telecommunications, during their ten year independent operation on the principle of self-financing, progressed considerably and have reached a satisfactory technical and organizational level.

39. In the coming Five Year Plan further development in telecommunications is expected, with a provision of rather large investments amounting to Eth. $ 26.5 million. In addition to the investment from their own funds a foreign loan amounting to about half of the total investment is planned.

Chapter 16·

TRADE, CATERING AND TOURISM

1. Narrowness and a very limited scope are the fundmental characteristic of the Ethiopian Market. Due to the present level of development of economy as a whole and the dominant position of agriculture within it, a considerable part of production is of a subsistence character, and for that part of production the market is not an agent between the producer and consumer, i.e. the producer is at the same time the consumer of his own products. His purchasing power is very small and does not permit larger market expansion. The remainder of the population is relatively small in number (10 per cent of the total population) and due to an undeveloped employment structure and consequent low incomes of the nonagricultural population, cannot present a stronger incentive for market expansion. The insufficiently developed transport network which does not yet cover all parts of the country, as well as the dispersed population which is scattered over the whole country, and in certain parts is not settled permanently, are additional factors which have seriously limited the expansion of the internal market.

Recent Development

2. Although not completed, the implementation of the planned targets of the First Five Year Plan led to an expansion of the market. Estimated on the basis of a growth of industrial and agricultural production as well as export and import in the 1949-1954 period, the volume of trade has shown the following increase :

Volume of Trade in 1949 *and* 1954

Item	Millions of Eth.$ 1949	Millions of Eth.$ 1954	Index (1954=100)	Rate of growth
Consumers' goods	531.2	654.5	123	4.2
Raw materials	76.6	110.0	144	7.6
Investment goods	43.3	72.3	167	10.8
Total :	651.1	836.8	129	5.2

In the First Five Year Plan period the Ethiopian internal market expanded. The turnover in the volume of goods increased by 29 per cent, so that the average annual rate of growth amounted to 5.2 per cent. The increase of turnover in the volume of investment goods was the highest (67 per cent), and was followed by an increase in the turnover of raw materials, which amounted to 44 per cent. The expansion of both of these markets reflects the general economic policy aimed at the accelerated economic development of Ethiopia. However, the investment goods and raw materials markets have remained insufficiently developed; the turnover of these goods was about 22 per cent in the total goods turnover in 1954 compared with 19 per cent in 1949.

3. Parallel with the expansion of the internal market, the implementation of the planned targets of the economic development of Ethiopia brought about new features in the organization of trade. In addition to private commercial organizations and merchants, two State institutions also took part in the market, viz., the Coffee Board and the Grain Corporation, both in the field of agricultural products turnover. Their appearance on the market proved to be fully justified, although they did not efficiently realize all the tasks they had undertaken.

4. Although Ethiopia's internal market expanded considerably in the 1949 - 1954 period, it retained all its former basic characteristics. The internal market has remained undeveloped, and with the exception of Addis Ababa and a few other towns, greatly dispersed. In a great number of settlements, including some urban settlements, the annual turnover of goods is so small that it makes impossible any development of modern trade with concentrated sales.

Development Targets

5. The development of trade in the Second Five Year Plan period is dictated by the planned accelerated economic growth of the country, and the accompanying improvement in the standard of living of the population. In this Plan period trade will have to handle a considerably larger volume of goods. It is estimated that the turnover in the volume of goods in internal trade will increase as follows :

Volume of Trade in 1954 ana 1959

	Millions of Eth.$		Percentage		Index	Rate of
	1954	1959	1954	1959	(1954=100)	growth
Consumers' goods	654.5	903.0	78.2	62.7	138	6.7
Goods in process	110.0	318.6	13.1	22.2	290	23.7
Investment goods	72.3	219.0	8.7	15.1	303	24.8
Total:	836.8	1.440.6	100	100	172	11.5

Parallel with this significant rise in the volume of internal trade (the volume in 1959 being 1.7 times that of 1954) the process of structural changes on the market, which started in the First Five Year Plan period, will continue. The share of the volume of trade in raw materials in the total turnover of goods will increase from 13.1 per cent in 1954 to 22.2 per cent in 1959, and that of investment goods from 8.7 per cent to 15.1 per cent. At the same time, the share of consumers' goods will decrease.

6. The expansion of trade in raw materials is stimulated by the fast growth of industry that is envisaged in the next five years. It is estimated that in the 1954-1959 period the volume of industrial production will increase from Eth. $ 116.4 to Eth. $ 369.6 million. This increase can be realized only if the supply of raw materials is sufficient to meet the fast rising demand of industry. Beside industry, other economic activities will also contribute to the growth of the volume of trade; the construction and building sector will have to satisfy the greater investment demands, and the process of modernization which will start in agriculture.

7. The doubling of total investments in the 1954-1959 period in relation to the previous five-year period is a major factor which dictates the expansion of the market for investment goods during the next five years. The anticipated changes in the pattern of investment which are reflected in the bigger share of directly productive investments in the total value of investment as a result of planned targets related to the building up of new projects in industry, agriculture, and other sectors, will bring about a more pronounced demand for equipment and other capital goods. Since some of the big projects will be

finished in the second half of the Five Year Plan period, the increase in demand will be felt particularly in the last two years of the Plan period.

8. Although at a slower pace, the market for consumers' goods is expected to expand in accordance with the planned rise in the standard of living. In addition to the increase in the turnover of consumers' goods, two other aspects of the development of the consumer-goods trade in the forthcoming five-year period should be pointed out: first, in the supply of this market, the share of domestic production will increase, and second, the trade network will also expand. The supply of more industrial goods by the domestic industry is brought about by the planned erection of new industrial enterprises, which in turn will automatically extend the internal market for consumers' goods.

9. The increased volume and structural changes in the turnover of goods envisaged during the next five-year period will set rather complex tasks for internal trade. The Second Five Year Plan will start a process of internal economic integration in Ethiopia in which internal trade will have to play an important role. It will have to link successfully the manufacturing industry and agriculture, as the supplier of the necessary raw material. On the other hand, the pace of the modernization of agriculture will depend, among other things, on the efficiency with which the necessary modern technical means are supplied, particularly in those areas where their use will increase most rapidly. Finally, commerce must contribute to the expansion of the market for consumers' goods by developing a desire on the part of the rural population to use more industrial goods as well as by directing the attention of industry to the variety and quality of goods demanded by the consumers.

Organization and Measures

10. One of the most important tasks of internal trade in the course of the next five-year period will be to improve considerably the organization of the purchase of agricultural products. It has already been stressed that agriculture will have to provide increased surpluses to meet the growing demands for export, for raw materials, and to provide food for the nonagricultural population which will increase

by about 500,000 people in this period. An efficient organization of agricultural surpluses is in itself a difficult task, in addition to the initiative of private middlemen, which must not be underrated, the Government will also have to intervene.

11. Government help will be useful in advancing the purchase of agricultural products through organizations which will be set up for the promotion of agriculture in general. The multipurpose co-operatives, as well as the public and co-operative big farms, should engage in the purchase of agricultural products from peasant holdings and in the preparation of products for export. The Agricultural Development Agency should co-ordinate the purchasing activity of co-operatives and big public farms and extend all necessary technical assistance to them in matters such as the organization of purchase, classification of products, storage, transportation etc. In this manner the necessary improvement in the quality of agricultural products for export could be achieved rapidly and, through higher prices, ensure more favourable terms of export trade and better results in earning foreign exchange.

12. Particular attention will have to be devoted to the organization of the trade in wheat and other cereals for the domestic market. In the coming years the trade in cereals will increase and the Government should therefore undertake necessary measures to stimulate the expansion of production, as well as to protect the interests of both the producers and consumers. The Grain Corporation is a suitable organization for carrying out Government policies in this sector of commerce, but there is a need for changes and improvements in its character. In order to store and keep the reserves for use when the situation on the market requires the Government's intervention, it will be necessary to build a certain number of silos in the course of the next five years.

13. The organization of trade in agricultural products used by manufacturing industry as raw materials does not present difficulties, and the industry's own purchasing network can most successfully perform this function. The tobacco trade, organized by tobacco factories, offers valuable experience and suggests that this method could

be successfully adopted with other agricultural products such as cotton, oil seeds, and even meat. The advantages of these forms of organization are twofold. The industry contracts production with the producers directly and ensures the quality of raw materials it needs according to its production requirements. Further, industry, being interested in the expansion of production and improvement of the quality of products in particular, organizes extension services, supplies the producers with selected seeds, with tools and implements, and introduces the system of instalment payment in kind, i.e., payment with produce instead of in cash. Big commercial farms will also constitute an important source of supply of raw materials to the manufacturing industry.

14. Imports of investment goods will rise owing to the large investments the Government will make, particularly in industry, agriculture,and transport. The accelerated development of the national economy calls for the introduction of additional measures, the most important among them being the exemption of custom duties for those imported goods which are of key importance to economic development, and the elimination of high trade margins. The Government should also take advantage of the existence of special technical agencies in agriculture and industry and use them to organize the import of capital goods needed for the projects it will have to finance.

15. Fairly large investments are needed for an adequate development of trade. It is forecast that the total investment in internal and foreign trade in the 1955-1959 period will amount to Eth. $ 22 million, excluding the increase of stocks which is estimated at Eth. $ 20 million. Government investment has to solve the problem of storing and keeping reserves of wheat in the big consumer centres. It is expected that the anticipated expansion of the market will induce private commercial establishments and merchants to invest more in trade, the more so since the private sector will have to carry out the majority of the tasks set forth in the retail trade. Government intervention here will be limited to price control and to a stimulative credit policy which in particular will have to facilitate the expansion of the retail trade network in the areas where it will be most needed.

16. One of the urgent tasks is to Ethiopianize the retail trade. This is particularly necessary on account of the penetration of retail trade into the rural areas of Ethiopia. It is well known that foreign commercial capital is not permanently interested in promoting trade between agriculture and industry, and especially not in increasing the turnover which would meet the requirements of an accelerated economic development. On the other part, domestic trade capital, which is more strongly bound to the internal market is, in principle, interested in expanding these relations. Of course, the process of Ethiopianization of trade is a long-term one, and to bring it about successfully it is most important to avoid any too rigourous or austere administrative measures. Extending good credit facilities to Ethiopians in order to help them start business, especially in the rural areas, appears to be the most efficient measure to apply.

Catering and Tourism

17. In the forthcoming period catering will have to develop in accordance with the demands of economic development and the increasing purchasing power of the population. In this respect a distinction has to be drawn between the specific targets for the development of small-scale catering on one hand, and the hotels on the other. The past years have witnessed a fairly efficient expansion of small catering, such as bars and the like, and this can be expected to continue in the next plan period.

18. The development of hotels is confined to the bigger towns and tourist places. Since there is a lack of big private capital in Ethiopia, it will not be possible to rely on market initiative to provide the desired expansion of hotels and Government initiative is needed, but it will have to be restricted only to the bigger key projects where private capital is not to be expected, or when the hotels established otherwise could not rise to and maintain the required standard of services. In particular, the Government should take the initiative in building hotels in Addis Ababa, as well as in several other places, which are important either as centres of economic development or of especial value for the development of tourism. In addition to Addis Ababa, the need for new hotels will grow intensively in Assab, which

should develop into the country's most important seaport for export and import and become an important industrial centre. The increase of hotel facilities will cause this seaport to attract a larger turnover of cargo.

19. It is envisaged that in the next five-year period three to five hotels with a total of 600 - 800 beds, and twelve to fifteen boarding houses, will be built, so that the total number of beds in Ethiopia should increase by 20 per cent by the end of 1959 as compared to 1954.

20. Modern tourism in Ethiopia is at the initial stage of development. The pleasant climate, mineral hot springs, natural beauty, historical monuments and hunting possibilities with which this country is endowed, constitute untapped sources of the national wealth and offer great possibilities for the development of planned tourism. There are good prospects of increasing the inflow of tourists during the European winter season. A well-organized information service abroad and the provision of all necessary tourist facilities at home, such as hotels, transportation, etc., are indispensable if tourism is to have its full potential share in the country's economic progress. However, this is a longer-term task, and the means which can be devoted to tourism during the next five-year period are such that only very moderate tasks may be set. In the Second Five Year Plan period Government activity will be concentrated on organizing a certain number of tourist information centres abroad, restoring historical monuments and providing all the necessary facilities for giving one of the selected places the best chance of attracting the attention of foreign tourists quickly.

Chapter 17

FOREIGN TRADE AND BALANCE OF PAYMENTS

Recent Development

1. Foreign trade is to play an increasingly important rôle in Ethiopian economy. After the expanding industrial and agricultural output foreign trade will have to constitute the third most propulsive sector of the national economy. In fact, without the necessary expansion of foreign trade to match the requirements of the growing economy, the immediate production targets set forth in the Second Plan could not be achieved nor could a sound basis for a sustained accelerated development of the Ethiopian economy be established. Planning social and economic development, which is justified on the ground that it enables the fastest accomplishment of the targets of nation-wide significance, cannot be considered complete and efficacious unless foreign trade is fully integrated into the Plan. Moreover, the failure fully to integrate foreign trade into the Plan with regard to targets, organization and measures, would seriously hamper the implementation of the basic development targets. On the basis of the evaluation of past trends, and of the demands which the anticipated rate of the national income growth in the Second Plan imposes upon foreign trade, its policies and organization have to be worked out with the aim of enabling foreign trade not only to facilitate the accomplishment of the Second Plan development targets, but also to give impetus to an even more intensive utilization of the vast existing production potentialities of the Ethiopian economy.

2. From 1949 to 1953 the total volume of foreign trade increased by 27 per cent, the volume of exports by 18 per cent and that of imports by 34 per cent, with an annual deficit in the external trade balance of only Eth. $ 20.3 million. These results become still more significant in the light of the fact that Ethiopian economy is of a monocultural character, and that during the period under consideration the terms of trade were very unfavourable.

3. The share of agricultural products in the present export pattern is highly significant. Thus, in the year 1952 which may be used

as fairly representative of the present structure of foreign trade. coffee, hides and skins, oil seeds, cereals and meat accounted for as much as 87 per cent of the total value of Ethiopian exports, while coffee alone represented one half of the total export in that year. In the import pattern there has been too much emphasis on consumers' goods, which in 1952 accounted for about 60 per cent of the total value of imports; at the same time the share of goods in process and capital goods in the total value of imports was much smaller, being 20 per cent each.

4. The situation on the world market was characterized by a deterioration in the terms of trade in respect to the prices of products which Ethiopia exports and imports. During the 1949 - 1953 period the prices of Ethiopia's export commodities went down by 4.7 per cent and the prices of imported goods decreased by 0.2 per cent: as a consequence the inflow of foreign currency decreased by Eth. $ 129 million,

5. More success would have been achieved if Ethiopian foreign trade policy had been less influenced by liberal tendencies. The inadequacy of such policies in the conditions of an accelerated economic and social development may be seen in the volume of foreign trade as much as in its structure and geographic distribution over the last five years.

(a) The differences which occurred between planned exports and imports and their realization were not so pronounced, but they nevertheless adversely affected the Ethiopian economy because exports have been smaller by Eth. $ 112.6 million, or 11 per cent, and imports were higher by Eth. $ 13.3 million, or 1.4 per cent.

(b) The First Five Year Plan predicted a much more favourable import structure than was realized; the planned import of capital goods implemented 70 per cent while the planned import of consumers' goods exceeded the targets by 28 per cent.

(c) The geographical distribution of foreign trade has been very uneven in the past five-year period. Out of the total Ethiopian imports of 1951/52, Western Europe supplied 43.1 per cent, U.S.A. 15 per cent, Japan 13.1 per cent, Eastern Europe 7 per cent, India 6 per cent, and all the African countries 2.3 per cent, while out of Ethiopia's overall exports Western Europe took 26.6 per cent, U.S.A. 38.1 per cent, Eastern Europe 3.1 per cent, Japan 2.6 per cent, all the African countries 6.9 per cent, and India well under 1 per cent.

Development Targets

6. *General Outline.* — The Second Five Year Plan sets before Ethiopian foreign trade very large and responsible tasks, the fulfilment of which will mark a decisive step concerning both the structure of the Ethiopian economy and the volume and structure of foreign trade itself. In the course of the Second Five Year Plan exports should increase from Eth. $ 194.9 million in 1954, to Eth. $ 327.7 million in 1959, or by 68 per cent i.e. at an average annual rate of 11 per cent. Imports are expected to grow faster, and it is estimated that they will increase from Eth. $ 234.2 million in 1954, to Eth. $ 419.2 million in 1959, or by 79 per cent, which gives an average annual rate of 12.3 per cent. As a consequence a significant change will have to occur in the share of the total volume of foreign trade in the net domestic product. This share will have to increase from 20.9 per cent in 1954, to 29.9 per cent in 1959, implying increases in the share of exports from 9.5 to 13.1, and that of imports from 11.4 to 16.8 in the same years.

7. The anticipated global movements of foreign trade which are a result of a more detailed balancing of exports and imports with other development targets of the Second Plan cannot be considered exaggerated. Concerning exports it is well known that Ethiopia provides export possibilities which are not yet sufficiently organized, as in the case of agricultural products, where only a small increase in production could ensure a considerable volume for export. As far as imports are concerned the estimated volume of investment in the Second Plan requires a considerable increase of imports, because the investments will materialize only through the import of equipment and machines.

8. Starting from the recent movement of exports and imports, and the estimated changes in the volume of foreign trade, as well as

in invisible exports over the next five years, it is expected that the balance of current transactions will develop in the Second Plan as follows :

Balance of Ethiopian Current Transactions
in 1953, 1954, *and* 1959

Millions of Eth. $

	1953 Actual	1954 Estimated	1959 Plan	Index (1954=100)
Export (FOB)	184.1	194.9	327.7	168
Import (CIF)	228.5	234.2	419.2	179
Trade Balance	— 44.4	— 39.3	— 91.5	234
+Invisible Exports and Imports	+ 10.9	+ 3.9	+ 6.0	154
+Balance of Current Transaction	— 33.5	— 35.4	— 85.5	242

+The years refer to the Gregorian Calender Years 1960, 1961 and 1966 respectively.

9. *Exports.* — In the Second Five Year Plan exports will rely mainly on the traditional agricultural export products, but an important place will gradually be occupied by new products of industrial origin as well as by those of the mining industry. In this way exports will attain a larger variety and they will contain a larger proportion of manufactured or semi-manufactured goods. This will not only facilitate their acceptance in the old markets but will also strengthen the competitive position of Ethiopian goods in new markets and will contribute to the improvement of the terms of trade. The following table summarizes the anticipated changes in the volume and structure of exports by basic economic branches in the Second Plan.

Export by Basic Economic Branches

In the Period 1954-59 and in the years 1954 and 1959

Branches	1954-59	1954	1959	1954	1959	=100)
Agriculture	1 071.0	182.4	237.0	93.6	72.3	129
Industry	185.5	10.2	80.0	5.2	24.2	784
Mining	38.1	2.0	10.0	1.0	3.0	500
Handicrafts	2.3	0.3	0.7	0.2	0.5	233
Total:	1 296.9	194.9	327.7	100	100	—

The largest increase is envisaged in the export of industrial products, where the volume in 1959 is planned to be 7.8 times that of 1954. The next largest expansion is foreseen in the mineral products, the volume of which should increase by 400 per cent by 1959. The export of handicrafts is to increase by 133 per cent, and that of agricultural products by 29 per cent. The increase in the export of handicraft products requires that this sector must contribute more to the country's export potentiality in future. These trends in export by basic economic branches will have to bring about important changes in the participation of agricultural and industrial commodities in the total exports. The share of agricultural products will have to decrease from 93.6 per cent in the 1954 exports, to 72.3 per cent in 1959, while that of the manufactured products in the same years will increase from 5.2 per cent to 24.2 per cent.

10. Fairly moderate estimates of export possibilities show that the following development of export of the more important agricultural products over the next five years may be confidently expected.

Export of Selected Important Agricultural Products

In the Period 1954-59 and in the years 1954 and 1959

In 1954 prices

	Millions of Eth. $			Index
Products	1955-59	1954	1959	(1954=100)
Coffee	601.0	99.6	135.0	135
Hides and Skins	125.0	22.7	28.7	126
Pulses	90.0	17.0	18.9	111
Oilseeds	96.0	14.9	21.2	142
Chat	54.0	10.2	11.0	107
Fruit and Vegetables	27.0	4.7	6.2	131
Others	78.0	13.3	16.0	118
Total:	1 071.0	182.4	237.0	—

In the coming five-year period coffee will remain the most important export commodity. In spite of a planned substantial increase in export (35 per cent more in 1959 than in 1954) the share of unprocessed coffee will decrease in total from 51.1 per cent in 1954 to 41.2 per cent in 1959, due to the changes in the basic structure of the export, already referred to. It is envisaged that in 1959 the export of powdered coffee will start and amount in that year to Eth. $ 7 million. In agricultural exports the share of coffee will increase from 54.5 per cent in 1954 to 56.9 per cent in 1959. This development of coffee exports may be expected on the grounds that the production of coffee will increase, and that better decortication, sorting, and packaging will be achieved. Coffee exports will bring about further important inflow of foreign exchange, and this is a realistic and feasible target in the light of two facts. Firstly, the prospects for increasing exports on the European market are good, particularly in view of the opening of new markets in the Eastern European Countries, and secondly, the production of coffee may, if necessary, be easily extended to offset the adverse effects of an eventual further fall in coffee prices on the world market.

11. Hides and skins rank second in the total value of exports and in the export of products of agricultural origin. Their share in total exports is expected to fall from 11.7 per cent in 1954, to 8.8 per cent in 1959, while their share in the export of agricultural products will probably remain unchanged (12.1 per cent in 1959 as compared with 12.1 per cent in 1954). These export targets can be achieved without difficulty owing to the immense livestock resources in Ethiopia, estimated to amount to about 20 million head. These great reserves should be more intensively utilized, because raw hides are products already introduced on foreign markets, the demand for which will probably remain fairly strong.

12. The anticipated increase of 11 per cent in the value of exports of pulses during the Second Plan is rather marginal so that its realization should not present a problem, particularly since domestic production can be expanded without large and special efforts.

13. The export of oil seeds is estimated to increase most rapidly. The climatic conditions in Ethiopia are very favourable for expanding the production of oil seeds, and there is a considerable demand for

them on foreign markets. It may be expected, therefore, that they will retain almost the same place among the agricultural export products that they have occupied until now (in 1954 their share was 8.1 per cent, and in 1959 it is expected to be 8.9 per cent).

14. Chat is a product which is purchased in considerable quantities in the Near East and Middle East. However, since no considerable further increase in demand on the foreign market can be expected, it is planned that chat should retain approximately its present share in the value of agricultural export.

15. Fruit and Vegetables are products which have not as yet found the importance in the Ethiopian exports that they deserve, considering climatic and soil conditions which are very favourable for large-scale production. No doubt large reserves exist here for increasing export by placing Ethiopian fruit and vegetables on the West European market, but this will require a much better organization of production, and the improvement of overseas transport facilities in particular.

16. There are a number of other products such as eggs, paprika (chili), honey and wax, and particularly products of hunting and fishing, which have good prospects for a place in foreign markets. The value of exports of these products is estimated to increase by 18 per cent over the next five years. With more attention devoted to the organization of larger production and trade in these products they could become a significant source of foreign exchange.

17. The Second Five Year Plan marks a definite turning point in the structure of Ethiopian exports, because the industrial and mining products will begin to occupy a more and more significant position. Their share in the value of total exports should increase from 6.4 per cent in 1954 to 27.7 per cent in 1959. The following table presents the expected development in the commodity pattern of industrial and mining exports during the next five years.

Export of Industrial and Mining Products
According to their Basic Branches

Basic Branches of Industry and Mining	Million of Eth. $ 1954	1959	1955-1959
Manufacturing Industry:	10.2	80.0	185.5
Food Industry	9.6	62.5	159.9
Leather & Shoe Industry	—	9.0	10.1
Building and Nonmetal Industry	0.1	3.2	4.1
Chemical Industry	—	3.3	4.4
Other industries	0.5	2.0	7.0
Mining:	2.0	10.0	38.1
Gold	1.9	3.0	13.5
Potash	—	6.0	21.0
Other	0.1	1.0	3.6
Total:	12.2	90.0	223.6

18. The products of the food industry will occupy the most significant place among the industrial and mining products. This development is based on the extensive raw materials and the large investments aimed at expanding the food industry in the Second Plan. It is expected that the share of the products of the food industry in total exports will increase from 4.9 per cent in 1954, to 19 per cent in 1959. It is envisaged that among the products of this industry in addition to sugar and edible oil, canned meat, fish, milk, and powdered coffee will take a particularly firm hold in exports. In addition to these, other Ethiopian finished industrial products will have to appear on the world market, such as footwear, sacks, blankets, cement, and asbestos. The need to import these goods will all decrease and eventually cease.

19. Mining production will still occupy a modest place in the period of the Second Five Year Plan, but even then it will not play a subordinate role because the estimated value of the export of gold over the next five years amounts to Eth. $ 13.5 million, and that of potash to Eth. $ 21 million, both figures being more significant than many agricultural and food-industry products taken separately.

20. The development of exports during the next five years as envisaged in the previous paragraphs emphasizes three factors which

make the export targets economically sound and realistic propositions. Firstly, the growth of domestic production of particular agricultural and manufactured goods for export is secured by planned production targets in their respective fields. Secondly, the estimate of export surpluses is made after calculating the changes in the volume and pattern of domestic personal and other consumption. One of the great advantages of the present situation in Ethiopia is that a growth of purchasing power of the rural population, as well as of that newly employed in industry and other activities, does not call, to any great extent, for an increase in imported consumers' goods or a decrease of export surpluses. Thirdly, the placing of Ethiopian merchandise on foreign markets is based either on already contracted shipments, or on moderate estimates of possible future trends toward the improvement that will have to take place in the production of export goods and organization of foreign trade.

21. *Imports.* Until Ethiopia establishes her own industry to supply domestic needs for machines, tools, consumers' durables and other industrially manufactured goods, she will be obliged to import these products, as well as many raw materials. Since the investment programme of the Second Five Year Plan is larger and more complex than that of the First Five Year Plan, it is fully understandable why changes have had to be made in both the volume and the structure of imports. This may be seen from the figures of imports by basic commodity groups in 1954, compared with the planned targets for 1959, and the totals over the five year 1955-1959 period.

Imports

In the Period 1954-59 *and in the Years* 1954 *and* 1959
Millions of Eth. $

Basic Commodity	Period	Year	Year	Percentage		Index
Groups	1954-59	1954	1959	1954	1959	(1954=100)
Capital Goods	709.1	58.8	179.4	25.1	43.3	305
Goods in Process	329.8	47.8	89.3	20.4	21.1	190
Consumption Goods	714.5	127.6	150.5	54.5	35.6	110
Total	1 753.4	234.2	419.2	100	100	179

22. In order to achieve accelerated economic and social development, it is inevitable that imports should grow faster than exports, and that the import of capital goods and goods in process should increase faster than the import of consumers' goods. The preponderance of consumers' goods in the pattern of Ethiopian imports in 1954 is clearly shown by their high share of 55 per cent in the total value of imports, while the share of capital goods was only 25 per cent. The Second Five Year Plan cannot preserve this pattern; in fact it introduces substantial changes by increasing the share of capital goods to 43 per cent, and decreasing that of consumers' goods to 36 per cent, whereas the relative position of goods in process should remain practically unaltered.

23. In the course of the Second Five Year Plan it will be necessary to import capital goods to the value of Eth. $ 709.1 million. It may be reasonably expected that these imports will be possible, due to the anticipated increase in exports, as well as to Ethiopia's credit capacity and the possibilities of utilizing economic and technical assistance. The major part of capital goods is intended for the development of industry, agriculture, and electric power, while a considerable part will go to transport and communications.

24. The completion of industrial projects that are in construction, and the construction of new factories will depend on increased domestic raw material. This will be particularly so in the food industry, the footwear and chemical industries, as well as in the nonmetal industry. However, the need for raw materials which Ethiopia does not at present possess, such as crude oil, rubber, steel, fertilizers, and selected seeds will not cease, but will in fact increase. Therefore, besides a considerable expansion of her own raw material production, Ethiopia will have to increase the import of raw materials from the Eth. $ 47.8 million estimated for 1954, to Eth. $ 89.3 million in 1959, so that these imports will amount to Eth. $ 329.8 million over the whole Five Year Plan.

25. The possibility of substituting domestically produced goods for those imported has been the main underlying principle in estimating the import of consumers' goods. An equally important aspect was the need to secure the foreign currency earned through exports and derived from other sources, primarily to import the necessary capital goods, and then the raw materials. At the same time the need to maintain, and to raise the living standards of one part of the Ethiopian population has not been neglected, although due to the need for utilizing foreign currency rationally, it will not be possible to satisfy these requirements fully. With this in view it has been planned moderately and gradually to increase imports, particularly of durable consumers' goods, while imports of most of the other consumers' goods will be kept on approximately the present level. The import of consumers' goods cannot, however, be considered small, bearing in mind that its total value over the next five years is planned to amount to Eth. $ 714. 5 million.

26. *Invisible Exports and Imports.* — Ethiopia, as a country which has taken the road of faster economic development, must necessarily encounter problems in balancing the deficit of trade, and the balance of payments, and must seek their solution by way of various sources of international financing.

27. The transactions of visible and invisible exports, their credits and debits, as well as the balance itself, are expected to develop in the Second Plan as follows:

Invisible Exports and Imports in 1954
1959, *and the* 1955 - 1959 *Period*

(In Millions of Eth. $)

Type of Transaction	1954		1959		1955-1959	
	Credit	Debit	Credit	Debit	Credit	Debit
Services	45.6	54.3	67.0	76.0	244.0	302.6
Transfer Payment	36.3	23.7	51.0	36.0	118.0	153.0
Total	81.9	78.0	118.0	112.0	362.0	455.6
Balance of Invisible Imports and Exports ±	+3.9		+6.0		—93.6	

Note: (1) Besides the difficulties with regard to the two calendars, there were also difficulties in working out the values of current and capital transactions on the basis of available statistics. For these reasons the figures present are of a tentative character but they nevertheless provide good indicators of the basic trends.

In 1954 and 1959 respectively, the balance of invisible exports and imports should show a small credit of Eth. $ 3.9 million and Eth. $ 6 million. On the other hand the balance of current transactions will show a total debit of Eth. $ 93.6 million by the end of 1959. The reason for this lies, above all, in the much more intensive building activity which will be carried out in the first years of the Second Plan, so that not only import but also a larger influx of foreign qualified personnel will cause larger expenditure. Further, the existing investments and credits will be followed by new ones, which will appear cumulatively before economic, technical, and other assistance, as well as tourism, begins to act in the opposite direction with an increased inflow of foreign currency. Because of this it is necessary to try to obtain grants amounting to at least Eth. $ 100 million in adequate time. U.N. assistance of Eth. $ 20 million as well as an inflow from foreign tourism of Eth. $ 55 million for the whole period, will be necessary.

28. It was perfectly proper for Ethiopia to take advantage of the various forms of economic and technical assistance, and on this basis an influx of about Eth. $ 100 million was achieved during the First Plan. At present this is one of the normal sources of international financing which has been accepted by all countries in the world, both developed and undeveloped. As far as Ethiopia is concerned, it may be stated with certainity that she has utilized this source of financing on a very modest scale, more modestly than many of the countries on the same level, and even than some of those on a higher level of economic development. This is especially true with regard to financial relations with the International Government Organizations which form a constituent part of the United Nations. Larger activity in Ethiopia on the part of those organizations, particularly UNESCO, the WHO, and UNICEF, is very desirable.

29. Foreign tourism is a source of foreign currency which has still been barely exploited, in spite of the very favourable conditions that exist for its development. In addition, it is necessary to consider in more detail the possibilities which handicraft and cottage industry products, typical of Ethiopian folklore, offer to

increase the foreign currency which tourists spend in the country. By the above and other actions the inflow of foreign currency would increase so that the active items of the visible and invisible transactions could grow considerably and together lead to a much more favourable balance of payments.

30. *Foreign Currency Deficit.* It is estimated that the total foreign currency deficit of the next five years will amount to Eth. $ 638.5 million. It will have to be covered by public loans concluded abroad amounting to Eth. $ 339.5 million, by foreign direct investment of Eth. $ 177.2 million, and by grants-in-aid of Eth. $ 121.8 million.

31. The financing of the foreign currency deficit according to the most careful estimates will not present a difficult or especially serious problem during the Second Five Year Plan, due to the fact that at the end of the last year the foreign public loans granted to the amount of Eth. $ 370.7 million were still unused. This amount already covers 58 per cent of the total deficit anticipated to develop during the Second Plan. Finally, if the need arises, it is always possible to utilize international sources for bank, commercial, or revolving credits as well as manipulative credits on the basis of various forms of payment agreements. In any case the international market, particularly that of public capital, offers various possibilities of securing the necessary amounts which will assist the economic development of the developing countries, and especially of Ethiopia, which rightly enjoys outstanding distinction in international economic and political relations.

32. The expected direct private investment of Eth. $ 177 million during the Second Plan is based on the fact that the Ethiopian economy offers a much better general economic climate, not only because the prospects for profitable investments are larger, but also because in the near future the investment law will extend all the necessary fiscal and other facilities to foreign investors, as well as the necessary guarantee in respect to the security of their investment. It can, therefore, be anticipated that foreign capital will show an interest in investment, even to an extent beyond the estimated requirements. In addition to direct private investments, other opportunities for the participation of private capital can also be opened; for

example, by issuing shares or bonds, obtaining long-term private loans, etc. while preserving the full economic and political sovereignity of the country.

33. The Eth. $ 10 million foreign exchange reserve, which is foreseen as a manoeuvreable reserve, will probably not have to be utilized, considering that the whole foreign currency deficit is sufficiently covered by international financing. However, if the need should arise, particularly to avoid unnecessary delay in the normal process of import, it would not present any difficulty, because Ethiopia possesses a total gold and foreign exchange reserve of about Eth. $ 150 million, and has, in addition, a regular average annual production of gold valued at over Eth. $ 2 million. This amply ensures the country's international solvency, and together with a firm internal purchasing power of the Ethiopian dollar, a desired stability of the balance of payments.

Organization

34. The possibilty exists that the objectives set for foreign trade and balance of payments by the Second Five Year Plan will not only be achieved, but surpassed to a reasonable extent. This would not, however, be feasible without a proper and efficient foreign trade policy and organization. It is essential that a series of systematic and synchronized economic and other measures be introduced, whereby the Government will intervene in order to direct foreign trade relations and thus secure the desired development of the economy.

35. It will be necessary, above all, to take certain measures, which elsewhere constitute the most widely applied economic instruments of national foreign trade policies.

(a) The present customs tariff is primarily of a fiscal character, but is should be revised so that it can comply with the aims of domestic product protection, and accordingly ensure the control of imports and stimulation of exports.

(b) The credit policy, as well as the premium and subsidy policies, should aid the development of production, purchase of products, reduction of transport tariffs, etc. in order to promote exports and facilitate and secure the planned imports.

36. In addition, it is necessary to consider in detail the administrative measures in foreign trade policy, such as conditional

import, licencing etc, in case the estabilished economic instruments prove ineffective. This will in all probability be necessary with regard to the import of capital goods and machines, and certainly in the import of luxury products.

37. The Government will find it urgently necessary to conclude a series of bilateral and multilateral economic agreements. Investment agreements will occupy a special position among the other international economic agreements. These specific agreements on the exchange of goods will have to regulate the purchase of capital goods and machinery as well as the manner of payments. The advantages of these agreements are that they provide a long-term planned investment construction, and consequently the utilization of foreign loans.

38. The Chamber of Commerce should become more active, and to achieve these aims there is need for better internal organization, greater emphasis on the mobilization of internal surpluses for export, and a better joint participation at international expositions and fairs.

39. The present network of foreign trade corporations will have to become stronger, as this would set up a much firmer basis for the fulfilment of the foreign trade plan. It will be necessary therefore to begin to organize Government or mixed foreign trade corporations for exports and imports with an extensive network of foreign representatives and agencies.

40 The implementation of all the stated tasks calls for a considerable number of qualified and skilled personnel; consequently it will be necessary to consider in detail the measures to be undertaken in the field of research and education in order to qualify Ethiopian personnel to deal with foreign trade and international payments in the shortest possible time.

Chapter 18

EDUCATION AND CULTURE

Education

1. The choice of an intelligent educational policy and its efficient organizational forms, as well as the readiness to make the most determined efforts towards the implementation of the objectives set forth in each stage, are of such a nation-wide significance that all these questions have to be approached with utmost care and deepest sense of national responsibility. It is not an exaggeration to state that in Ethiopia, the further elaboration of the most suitable educational systems is one of the key factors on which the achievements of the desired goals of social and economic development depend.

2. In approaching the problem of the educational system which will best suit the requirements of rapid long-term socio-economic development, it is necessary, above all, to define clearly the basic objectives and the scope of education. Education constitutes an important component of the standard of living and as such it is a goal in itself. Owing to the intensity of the desire to reach higher levels in education as quickly as possible, there is a tendency to absorb too much of the limited national resources and thus hamper the possibilities of a faster economic growth. In fact, an expanded material basis is essential for achieving higher educational and cultural levels in the future. On the other hand, education is at the same time a social activity with definite economic connotation. It is process of human investment, i.e., it forms an indispensable part of overall investment, whereby national and human investments are so closely interrelated that optimum results of an investment policy cannot be expected unless the development targets for the various economic and social activities are properly matched with the educational programme.

3. In that sense, education in Ethiopia cannot be considered as an end set apart from the general requirements of socio-economic development. It has virtually to constitute an integral part of overall planning. This dictates the objectives and scope of education in Ethiopia. It has primarily to serve the needs of the country's

development and thus make its fullest contribution to the achievement of national goals. From this it is easily perceived that education in Ethiopia has to be taken in its broadest sense; it does not only imply the activites of the educational institutions proper but of necessity also stretches over a whole set of activities, ranging from training manpower for various jobs and skill-levels to the various forms of broadening the educational and cultural level of the people.

4. Further elaboration of the educational system in Ethiopia in the first place calls for a selection of priorities. Consequently, emphasis should be laid on those forms and types of education and training which will open the most efficient means for achieving the development targets set forth in the Second Plan. Moreover, it will have to lay down the foundations for an educational pattern that will contribute to maximizing the speed at which Ethiopian society can move towards advanced levels of an economic and social life and living conditions. However, the evaluation of the existing situation and the results achieved so far, as well as the magnitude and the structure of the demand for personnel which the anticipated rate of growth of various economic and social activities will generate, provide sufficient ground for setting up basic educational targets for the Second Five Year Plan. This task is of a rather complex nature and requires organized research, taking into account the peculiarities of the Ethiopian conditions, with the aim of building up an educational structure which will best suit the targets of the socio-economic advancement of the Nation.

Recent Development

5. The lack of population statistics seriously hampers a precise evaluation of the general educational level of the population and the structure of manpower with respect to technical education and levels of skill in particular. However, the available statistical data reveal that in the past years there has been important educational activity in the country which has resulted in a significant continuous rise in the number of students in the Government educational institutions. The increase of the number of students in the last five years, 1949-1953, can be seen from the following table :

Pupils Enrolled in Primary, Secondary and Post-Secondary Government Schools, **1948 - 1953**

	School Year	Primary*	Special	Academic Secondary	Post Secondary	Total	Index (1948=100)
1956	1948	109 368	1 495	2 097	334	113 294	100
1957	1949	135 749	2 217	2 628	466	141 060	124
1958	1950	150 892	3 245	3 492	605	158 234	140
1959	1951	158 005	3 648	4 496	760	166 909	147
1960	1952	170 460	3 646	5 273	827	180 206	159
1961	1953	176 726	3 598	5 626	939	186 889	164

* Grades 1-8.

During the last five years the total number of students in the Government schools has increased by 65 per cent or progressively 11 per cent per annum, this rate having been determined by the rate of increase of pupils in the primary schools due to the fact that in 1953 177,000 of these pupils were making up as much as 95 per cent of the total number of students in the Government schools. This is a favourable trend which has been shown in the faster increase of students of special secondary and post secondary levels, whose number doubled in the same period. Nevertheless, their total number in the schools is very small, and even adding the small number of pupils who attend the non-Government primary schools, the number falls very far short of the actual needs.

6. Though the Government school system is the backbone of national education, and the future of the educational activity in the country depends on the development of this system, the non-Government schools at present play a significant role in the general education of the population. As compared with the total enrolment in the Government Primary and Academic Secondary schools in the school year 1953, those non-Government schools (Community, Private Mission and Church Schools), which follow the curriculum of the Ministry of Education, have alone contributed more than one third of the total number of students enrolled into the twelve grades. When the students in the non-Government schools which do not follow the curriculum of the Ministry of Education are taken into account, the balance is much in favour of the non-Government schools. According

to the information from the Ethiopian Orthodox Church Head Office, the Orthodox Church schools have enrolled, in the 1953 school year, more than 600,000 students. This is 3.4 times the total enrolment in the Government schools in the same year. No doubt there is a significant difference in the quality of education of these two school systems, but as far as reducing the rate of illiteracy and the extension of basic primary education are concerned, the contribution of the church schools cannot be ignored.

7. By increasing the number of graduates of different special schools, educational activity in the past five years contributed well towards meeting the increasing demand for skilled personnel in business and social services.

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Graduates in Special Schools from 1949 - 1953

Speciality School Year	1949	1950	1951	1952	1953
1. Elementary School Teachers	372	510	448	455	366
2. Secondary School Teachers	—	—	20	16	18
3. Commercial Education	40	126	143	196	196
4. Tech. & Vocat. Education	115	146	171	343	213
5. Agricultural Education	65	72	79	95	78
6. Public Health Education	45	80	102	90	103
7. Others	30	34	112	73	41
Total	667	968	1 075	1 268	1 015
Index 1949 = 100	100	145	161	190	152

The total number of graduates from special secondary schools increased by 72 per cent over the last five years, their number in 1949 being 667, and rose to more than one thousand by the end of 1953.

8. The young institutions of higher learning in Ethiopia trebled the number of their graduates in the period under consideration: while the number of graduates in the 1949 school year was only 41, four years later it increased to 118. The actual number of students enrolled in the higher institutions at home in 1953 was 883. The distribution of graduate students and those still studying in the various faculties and colleges is brought out in the following table :

1957 - 1961

Number of Graduates During 1949 - 1953 *and Students Enrolled in* 1953

School Year Institution	Graduated 1949 - 1953	Enrolled 1953
1. Faculty of Science	15	97
2. Faculty of Arts	161	308
3. Engineering College	57	128
4. Building College	28	91
5. Agricultural College	124	190
6. Public Health College	18	56
7. Theological College	—	13
Total	403	883

In order to get a complete picture of the academically trained people it is necessary to take into account not only the students graduated in the country, but the Ethiopian students abroad, too.

1961

Returned Graduates up to August 1953 *and Students Studying Abroad*

Field of Study	Returned	Studying
1. Social Sciences	343	201
2. Engineering	197	180
3. Medical Sciences	109	166
4. Agriculture	165	138
5. Education	169	148
6. Humanities	21	85
7. Natural Sciences	35	5
8. Fine Arts	47	39
9. Others	15	17
Total	1,101	979

It may be observed that in the existing pattern of higher education more emphasis is laid on the academic type of higher education. Thus both the graduates abroad and those studying at home in the field of Fine Arts and Social Sciences and other nontechnical subjects, constitute about 40 per cent of the total number.

Educational Targets

9. The development targets set forth for various economic and social activities in the Second Five Year Plan demand a large increase in the number of qualified personnel and technical manpower in particular. Out of some 1,833 university graduates required, about 800 are to staff the expanding social services and Government administration, and 1,033 are to meet the growing needs of expanding industry and other economic activities. In addition, some 11,700 technicians and employees with completed secondary level of education will be needed to fill the new jobs that the anticipated economic development will create, and to secure the successful implementation of the production targets of the Second Plan it will be necessary to have 900 more highly skilled, 2,700 skilled and 29,500 semiskilled workers for the new industrial plants, modern large farms, expanding activities of construction, transport and communications, trade, etc. If these objectives are expanded to bring about only the indispensable progress which has to be made towards the reduction of the very high proportion of illiterate people and the provision of a primary general education to the extent needed for the whole educational system to operate successfully, the magnitude and complexity of the tasks in the field of education become evident.

10. Both because of the shortage of qualified personnel who can assume teaching responsibilities in various educational fields, and of the limited material and financial resources on a nation-wide scale, it is obvious that the above mentioned targets can be accomplished only through a very carefully designed educational policy. A selection of priorities has to be made with regard to various aspects of the educational system, such as the types of education, the content of the educational programme, the methods of vocational training, financing, etc. The following are the basic principles which must underlie the necessary adjustments and elaborations of the existing educational system in Ethiopia.

(a) the educational system in Ethiopia has to emphasize strongly the priority of technical education, taken in a broad sense, and thus supply the ever growing needs for technical manpower and qualified personnel in industry, agriculture, and other economic activities, as well as for the social services and administration;

(b) general academic education, instead of being excessively developed in comparison to technical education, retarding the speed at which the latter might develop, has to be properly balanced in order to become a necessary link in the educational system, and thus contribute fully to the advancement of national economy;

(c) the length of studies, hours of work and the educational programmes must be adjusted to ensure the fastest turnout of qualified personnel with the desired educational levels and standards;

(d) the various forms of vocational training which are most suitable for fast and efficient training of skilled and semi-skilled manpower to meet the demand of the growing economy, must be given fullest attention, applied on as large a scale as possible, and organized with regard to timing;

(e) in financing this comprehensive educational programme the principle of a most efficient use of the available material resources and the teaching staff must be strictly adhered to, inducing the communities and local population to contribute money, materials, and voluntary labour for constructing school buildings, generally supplemented by Government assistance in money and materials. This will have to be organized on as large a scale as possible.

11. *Primary Education* (Grades 1 — 6). The low ratio of enrolment to the total number of school-age children from 5 to 14 is no doubt a very strong argument in favour of rapidly expanding primary education. Primary general education provides not only the possibility of obtaining the necessary personnel and experts of higher levels of education, but supplies also a prerequisite background that enables unskilled manpower to acquire new technical knowledge with less difficulty and to adapt themselves faster to the requirements of modern industrial and agricultural work. Nevertheless, a certain limit must be set to the possible extension of primary education having regard to the scarce resources and the need of developing technical education in particular.

12. Due to a lack of teachers in the first place, primary education in this stage will have to extend over only six years. The question of school duration has to be considered in the light of the present

high rate of fall-out of pupils in the primary schools. The number of pupils, for example, enrolled in 1945 and 1946 in the first grade was reduced in the eighth grade to as low as 18 and 15 per cent. respectively, of the enrolment. This is an immense wastage, and by slightly shortening the duration of school, together with other measures, including necessary legislation, it is expected that the turnout of the primary schools will be increased and the quality of teaching improved.

13. To enable the system of general education to impart more technical knowledge and skill and thus increase the productive capacities of those who will seek employment after leaving the primary schools, as well as to contribute to the advancement of production and level of living in the countryside, it is necessary to introduce more technical education and vocational training into the curriculum of primary schools. In addition to teaching the boys various crafts by organizing school work-shops and teaching the girls home economics, it is of particular importance to teach and train the rural school children practically in the new methods of farming. The abundance of arable land makes it possible to establish school gardens which should be cultivated by the teachers and pupils in accordance with the needs of development of the respective regions. In these gardens fruit and vegetables could be cultivated and various simple experiments carried out to raise the most appropriate plants. Afforestation is also an important activity in which school children should take part, wherever possible. Full advantage has to be taken of the fact that the primary schools are scattered all over the country so that they can become, particularly in the remote areas, the very centres for dissemination of knowledge on the more advanced forms of life, especially by proving the advantages of education in those fields in which the population is materially directly interested. To enable teachers to carry out these complex tasks, the appropriate Government Agencies will have to organize supplementary training courses for the teaching personnel, provide necessary literature, engage instructors, etc. The whole programme will have to be fully co-ordinated with the National Community Development Scheme.

14. The programme for primary education envisages that the number of pupils in the Government schools will increase from 180,533

in 1954, to 275,900 in 1959 or by 53 per cent. In the same period the number of classrooms will have to increase by 50 per cent, i.e. from 4.254 to 6,304 in 1959, which will mean a slight increase in the number of pupils for each classroom. Taking into account the estimated activity of the non-Government schools that follow the official curriculum, the number of enrolled pupils will increase from 229,933 in 1954, to 331,100 in 1959 or by 44 per cent. Taking into account also the educational programme of the Ethiopian Orthodox Church the rate of illiteracy should become much lower by 1959.

15. It is estimated that the total number of classrooms in the secondary schools will increase from 1,010 in 1954 to 1,435 in 1959, or by 43 per cent, while the number of pupils will rise from 29,331 to 40,450, or by 38 per cent. The number of pupils in the Government schools is estimated in 1959 at 88 per cent of the total. As the principal role of academic secondary schools is to supply future students for advanced education in the institutions of higher learning, the increase of the number of pupils in this type of secondary schools must be kept within the requirements of the higher educational institutions, their number in 1959 is estimated at 29,450 or 73 per cent of the total numebr of pupils in the Government and non-Government secondary schools together, i. e. 27 per cent of pupils will be taught in specialized schools, technical, agricultural, commercial, medical, veterinary, teacher-training and administrative colleges.

16. In order to meet the demand of the expanding economic and social activities, it is estimated that over the next five years the special secondary schools will have to turn out the following number of specialists: technicians 1,550, agricutural and forestry technicians 927, veterinary technicians 402, school teachers 2,500, commercialists 1,340, other skills (clerks, etc.) 4,980.

17. The rather large expansion of primary education will demand an adequate increase in the number of primary school teachers. The provision of facilities to train them at the secondary level therefore deserves full attention. As the emphasis in secondary schooling has so far been on the academic and general, rather than on technical and specialized education, efforts should be made to organize suitable courses of additional training, and thus help to meet the urgent needs for school teachers. In a similar manner, special courses

for training specialists in various secondary-level skills such as bookkeepers, clerks, medical assistants, and even technicians should be organized.

18. Many of the specialized secondary schools do not exist at present. Concerted efforts and well planned activity of the Ministry of Education will therefore be needed to enable the new schools to start on time so as to be able to train the required personnel in the course of the Second Plan. It has to be borne in mind that after skilled operatives, the requirements for secondary level skills will grow the fastest. Moreover, the national educational system has to provide training for a sufficient number of this type of personnel, since it will not be possible to rely upon external recruitment. It is a favourable circumstance that most of the big projects, in industry in particular, which will have to be built under the Second Plan, are to be completed in the second half of the plan period. For this reason there will be sufficient time to establish and organize the proper functioning of the new schools and to adjust the output of the secondary-level skills to the rising demand for them.

19. *Higher Education.* — In considering the main lines along which higher education will have to develop, two aspects of the problem appear particulary important. Firstly, higher education has to supply personnel who are indispensable and of crucial significance to the advancement of the economy and the society as a whole. Secondly, at present there is a number of foreign experts who make up for the lack of domestic personnel. No doubt the prospects of accelerated economic and social development in Ethiopia will demand ever more highly qualified personnel, and it is to be expected that Ethiopians will gradually occupy the responsible jobs in all walks of economic and social life where high skills are a sine qua non for a successful accomplishment of the assumed duties.

20. The estimates made on the basis of the planned expansion of economic and social activities show that over the next five years the following number of graduates from the institutions of higher learning will be required: 160 mechanical engineers, 107 electrical engineers, 129 chemical engineers, 156 civil engineers, 470 economists, 35 veterinarians, 175 agricultural engineers, 20 mining engineers, 8 forestry engineers, 100 physicians and 473 other graduates. The Second

Plan therefore accords priority to science, technical, and public health university education.

Enrolment in the Institutions of Higher Learning 1953-1959

Faculties	1953	1954	1959	Index (1954 = 100)	Rate of Growth
1. Faculty of Arts	308	466	500	150	8.5
2. Faculty of Science	97		200		
3. Engineering College	128	146	230	158	9.5
4. Building College	91	111	160	145	6.6
5. Agriculture College	190	195	300	154	9.0
6. Public Health College	56	46	150	326	26.7
7. Theological College	13	14	20	143	7.4
Total	883	978	1 560	160	9.7

21. All facilities cannot be provided to enable the domestic institutions of higher learning to satisfy the requirements. It will be necessary, therefore, to continue sending students for study abroad and to this end, besides the resources the Ethiopian Government will set aside, more assistance in the form of scholarships will have to be sought from friendly foreign countries. However, a programme for studying abroad to meet the country's actual needs will have to be worked out and used as a basis for the organization of studies in foreign countries.

22. There still remains the serious problem of providing sufficient and suitably qualified university professors for the existing faculties and colleges, and for those which have yet to be established. The recruitment of teachers from abroad would undoubtedly be of benefit. There are also considerable possibilities of recruiting part-time teachers from among the experts already in Ethiopia, employed in various technical and other fields.

23. *Vocational Training.* — The implementation of production targets in industry, agriculture, and other branches of the economy depends to such an extent on the supply of skilled workers that most serious consideration should be given to this problem. The approach will have to depend on whether the needs are already existing, or will arise as a result of the new establishments.

24. The training of skilled or semi-skilled operatives needed for the expansion of existing industrial plants and other establishments

will have to adopt such forms as the apprenticeship scheme and on-the-job training, which have already proved to be the most efficient methods for developing specific skills. Larger enterprises should organize training courses in which engineers and other personnel of higher skill would extend the theoretical and practical knowledge of the employed workers. These establishments will also have to train the workers who will work in the newly built plants designed for similar production. In places where there is a higher concentration of workers, regular evening classes will have to be organized for various skills to provide the trained workers with certificates of the skill levels they have acquired, thus stimulating a desire for advancement and promotion. In this manner full advantage may be taken of the existing engineering and other technical staff by employing them as part-time teachers in the evening classes.

25. Many of the industrial projects which are to be erected under the Second Plan belong to new lines of production (metal working, chemical industry, etc.), which calls for development of new skills among the workers. To cope successfully with this problem and to meet the demand for various skills it will be necessary to organize, in advance, special training centers, and to provide them with the necessary facilities. In some cases it will be necessary to send the workers abroad for several months of on-the-job training. To ensure the required financial means for this purpose, the plans for financing these investment projects will necessarily have to include the amounts needed for special vocational training.

26. *Action Against Illiteracy* — The campaign which the Ministry of Education has launched against illiteracy will have to be further strengthened and expanded. The active participation of educated citizens is a factor which can substantially broaden the scope of the campaign and greatly speed up the pace of reducing the present high rate of illiteracy.

27. *Adult Education.* — Many human, political, social, and economic reasons suggest that it is essential to extend the scope of education to those who did not have an opportunity to attend school regularly. Therefore, an adult education programme should be encouraged, broadened, and undertaken on a larger scale. The present number of teachers trained for this programme is quite inadequate. This number should be increased and the task of these teachers should be

clearly defined, to avoid duplication of work and waste of resources. The curriculum for adult education must be made suitable to those attending. Beside this more formal education, it will be useful to introduce special programmes of educational lectures to extend mass education. It is also important to popularize evening classes in urban areas. The services of part-time teachers should be utilized through a proper campaign and appeal to the educated class. The programme of the Mobile School, which is on an experimental stage at present, should be extended and promoted.

28. *Financing.* — The comprehensiveness of the educational programme that has to be undertaken during the Second Plan calls for extreme economy in handling the financial aspect. Every effort has to be made to exploit all possibilities of reducing the costs of education, both on the current and capital account. The construction of modest and low-cost standardized buildings must be the guiding principle. Introduction of two shifts is a useful device for keeping the construction of new buildings within the most economical limits. Already existing premises can be used for more than one educational activity (evening classes, special vocational courses, adult educational classes, etc). In rural areas there is an opportunity for mobilizing local initiative to contribute voluntary work, supply of materials, etc., both in building village schools and equipping them with furniture.

29. The national budget for the Second Five Year Plan has allotted to the primary and secondary Government schools (including special schools) Eth. $118.1 million. Out of this, Eth. $106.3 million have been assigned for current expenditure while Eth. $11.8 million are for capital expenditure. It is also foreseen that Eth. $39.3 million will be allotted to the institutions for higher education. Out of this, Eth. $24.3 million will have to provide the current expenditures, and Eth. $7 million the capital expenditures of the Haile Selassie I University. The remaining amount of Eth. $8 million is reserved for grants to Ethiopian students abroad. In addition, it is expected that Eth. $8 million of foreign financial resources will be used to cover the expenditure of the Haile Selassie I University. As has already been pointed out, the financial means for training and retraining workers for industrial establishments in the new lines of production will have to be provided within the outlays envisaged for the respective projects.

30. *Organization.* — The educational development targets for the next five years set forth in the previous paragraphs are very extensive. Without efficient, well organized, adequately staffed and qualified personnel, the Government machinery will not be in a position successfully to implement the numerous tasks in the field of education. The Ministry of Education will have to play a vital role in the implementation of the whole programme. Among the more important tasks that the Ministry will have to deal with, are the following:

(*a*) To organize necessary research and studies with the aim of further elaborating the educational system so that it will best suit the needs of the socio-economic development of Ethiopia.

(*b*) In collaboration with other Ministries to study and further elaborate the curricula of the educational programme of various institutions, so as to make them into increasingly efficient instruments for enlarging the Nation's human productive resources.

(*c*) To co-ordinate the activities of all the educational institutions, particularly the non-Government institutions and carry out necessary inspection.

(*d*) To organize, in collaboration with other Ministries, the planning of vocational training for workers and to supply the necessary financial and technical assistance, as well as literature, instructions, etc.

(*e*) To initiate, supervise, and assist the nation-wide adult educational programme.

Culture

31. Cultural activities form an indispensable part of a general educational policy. In Ethiopia, where the lack of numerous facilities, especially teachers, limits the possibilities of extensive education for the masses, various cultural activities become even more important instruments of the national educational policy. Different forms of mass media of communications, such as broadcasting, the press, films, books, and other printed material, seminars and lectures as well as exhibitions and museums, offer ample possibilities for increasing the educational and cultural level of all sections of the population. The desire for more knowledge and wider cultural vistas has to be even more stimulated and utilized with the aim of shortening the period

within which the existing wide gap in the cultural and educational level will be bridged. That is a long-term endeavour, but the fundamental requirements are easily recognized and they dictate the immediate tasks. Thus, the programme over the next five years will have to lay emphasis on those activities that are most efficient in spreading mass education, as well as on strengthening the national consciousness and zeal of the population throughout the country to enable them to contribute their full share to the rapid advancement of Ethiopia.

32. Broadcasting should be granted one of the highest priorities. Its advantage is in the fact that it can be efficiently used, by an appropriate arrangement of the programmes in various languages, to raise the educational levels of all sections of the population, the illiterates in particular, not to mention the invaluable help radio service offers in welding national coherence and deepening the sense of people's unity. The Second Five Year Plan will have to mark substantial progress towards the establishment of a well developed broadcasting service, in the country. It is planned that from the present two-hour daily radio service, the Addis Ababa radio service will by 1959 broadcast regular 18-hour daily programmes. In order to provide an adequate coverage, it is anticipated that besides building a 100 kW medium-wave broadcasting station in Addis Ababa, a network of transmitting stations located in each of the seven Provinces will be established. In addition, a 100 kW short-wave transmitting station will be built in Addis Ababa for international service. This expansion of the radio-network will have to be accompanied by a campaign in the villages to introduce, wherever possible, the most suitable forms of spreading listening facilities and habit (by public address systems, for example).

33. Films arouse much interest among the masses. It is envisaged that a certain number of documentary films, news-reels and film strips will be produced each year to be used more extensively for general educational purposes. They will be made in all principal local languages and mobile operators will take them into all parts of the country. In the field of modernizing the audio-visual activity an important step will be undertaken during the Second Plan period by establishing a television system in Addis Ababa and by starting the

first experimental programme.

34. Besides the broadcasting service, the press in general will have to be used more extensively for general educational purposes among literates than it has been so far. Editions of inexpensive booklets and pamphlets dealing with contemporary subjects in economics, agriculture, nutrition, child care, hygiene, etc., should become powerful means of communication and mass education. Special series dealing with the problems of the social and economic development of Ethiopia and the propagation of the Second Five Year Plan targets will in a large measure help the people to fully understand the necessity of embarking upon an accelerated overall economic development. They will also realize that the benefits which the present and future generations will enjoy are worth the efforts and sacrifices that have to be made at this stage of the country's development.

35. The National Library will have to contribute greatly in these efforts. Acting as a centre from which a network of branch public libraries in provincial towns and communities could be created, equipped and staffed, it should serve as a useful medium by which the above mentioned editions could reach the readers. A Library Extension Service based on mobile library units can extend this activity which will result in spreading knowledge, fighting ignorance and illiteracy, advancing mass education and raising the intelectual standard of the population. However, apart from this educational activity and above its other important tasks, the National Library should help in the scientific exploration on the unsystematized and scattered historical documents which are a component part of the cultural wealth of Ethiopia. It should complete and keep collections of historical documents and of any other materials dealing with Ethiopian matters, regardless of the time and language in which they are issued. This also means that it should act as a depository of all materials printed within the Ethiopian Empire. To achieve this purpose a Law of Deposit should be promulgated.

36. Ethiopia is very rich in historical monuments and archaeological sites. This historical wealth is far from being explored and made accessible to all those interested in the study of ancient Ethiopian culture. The Nation should engage more in the discoveries of its own rich past and also seek all possible assistance that can be extended by

friendly foreign countries and relevant institutions. There is also a great need to organize protection of the existing historical monuments and archaeological sites and to start the necessary conservation work. This service will have to be organized by the National Museum which could also enlarge its collections in this way.

37. For financing the aforementioned programme of cultural activities in the Second Plan, a total of Eth. $8.1 million for capital expenditure and Eth. $23.5 million for recurrent expenditure is provided. Installations for the television system, the short-wave radio transmitter and the network of medium-wave transmitting stations, estimated to cost Eth. $3.5 million, will be supplied by foreign loans already secured. The remaining amount for capital expenditure, as well as the amount envisaged for recurrent expenditure, will be provided by the budget.

Chapter 19

PUBLIC HEALTH

1. The First Five Year Plan period has been characterized by the development of "National Health Consciousness." Public Health, therefore, deserves a significant place in all the future plans of the Imperial Government. The present health needs of the country can no longer be entrusted to the seemingly haphazardly organized health services; they demand systematically planned health services. It is now generally felt that epidemics must be subject to national control; it is hoped and expected that disease in general, malnutrition, infant mortality and the high death rate in parts of the country resulting from communicable diseases will be prevented, as they are rightly of vital concern to all the people of Ethiopia as well as to the Government. The plans and the unmitigating struggle of the Imperial Government and the people to achieve social and economic progress can only be realized if recent trends and developments are followed and strengthened. The essential theme in this trend is the recognition that a nation should give increasing attention to the promotion of health as an essential prerequisite to general, social and economic advancement. One manifestation of this trend is the emphasis which the Second Five Year Plan places on the social aspects of the prevention of disease and the protection of health. Improvement of health is more clearly conceived as a vital element in economic and social development. The Second Five Year Plan has placed greater emphasis than hitherto on what may be termed the "co-ordinated" approach to Public Health, bringing to the subject a team spirit and a common understanding which ensures a more thorough and valuable result than would otherwise be possible. Such an approach will enable professional and auxiliary workers in such fields as environmental sanitation, health administration, nursing, health education, material and child health, mental health and nutrition to combine their efforts in a substantial contribution towards the achievement of total health.

Recent Developments

2. Public Health Services have achieved considerable progress in the course of the First Five Year plan. Hospitals with a total of 600 beds have been established throughout the Empire, particularly

at Dessie in Wollo Province, Makelle in Tigre Province, Harar and Dire Dawa in Harar Province, as well as the Ethio-Swedish Pediatric Hospital in Addis Ababa. In addition to this, 48 health centres and 108 health stations have been established throughout the Empire. The number of hospital beds has been increased by 10 per cent. A total of 750 dressers were trained and certificated during this period, and in the five Nurse Training Schools 182 nurses completed their studies.

In various universities abroad, 28 physicians and 6 pharmacists obtained their degrees and returned to Ethiopia. Special courses were held for laboratory technicians in Gondar and Addis Ababa and they have provided hospitals and public health institutions with the services of 28 trained laboratory technicians. A number of X-Ray technicians, health educators, hospital administrators, laboratory technicians, and fifty-five nurses and nurse-midwives were trained abroad and are available for the Ethiopian health service.

3. During the past five years important steps have been taken in the treatment and prevention of the major communicable diseases. The Malaria Eradication Project was initiated in 1949, and has expanded to an organization of 335 regular employees which serves about 800,000 people out of a total of approximately ten million exposed to malaria. Tuberculosis Control has been initiated as a special service with a demonstration and training centre in Addis Ababa. This centre has trained 200 health workers, has examined more than 100,000 people, and has had about 7,000 people under treatment. In addition a new hospital with 60 beds was established in Harar. The Leprosy Control Programme, which was started before the First Five Year Plan, has been extended throughout the Empire and has established four segregated villages in Shoa and Arussi Provinces with a capacity of 2,000 inmates, and has trained 80 elementary dressers. Venereal Disease Control has been continued throughout this period, and mass campaigns were carried out in Wollo, Shoa, Gojjam and Wollega Provinces with a total of 250,000 persons treated. During the yellow fever epidemic in 1951 (E.C.) in the South-western Provinces, about one million of the exposed population was vaccinated.

4. By increasing the number of hospital beds, extending the network of health institutions (hospitals, health centres and health

stations) and by concentrated efforts in attacking the most dangerous communicable diseases during the past five years, public health services have created a solid basis for further improvements and developments in the coming five-year period.

Development Targets

5. *Basic Principles.* — In the Second Five Year Plan Public Health will have more priority than it has had hitherto. In expanding the public health services emphasis will be given to preventive medicine. The numerous problems of national health cannot be solved by merely opening hospitals. The first step and the prior role in solving these problems will be given to preventive medicine, the object of which will be to forestall in time all the diseases whose treatment would later be much more difficult and much more expensive. Efforts in this direction will also lead to a decentralization of Public Health institutions, which will satisfy the needs and wishes of a larger number of the population, because preventive medicine is expressly a social service which does not only have a purely medical character, but also an educative and social one.

6. The network of public health centres and stations will be expanded in the course of the Second Five Year Plan, and will be brought closer to the people. Eventually one health centre must be established for at least each 50,000 people, and one health station for each 5,000. The present inadequate number of medical personnel, particularly physicians, who are at present concentrated in Addis Ababa and a few other central towns, is an obstacle to decentralization. In order to surmount this difficulty, it will be necessary to extend the training of medical personnel at all levels. It is essential to foresee in detail the functioning of the public health centres and stations, and to set before them precise and clear tasks. It is especially important that a rational system of health centres be established and a strict professional discipline introduced. Only in this manner will it be possible to achieve a satisfactory decentralized network of health institutions.

7. While by no means neglecting hospitals and their role in public health, preventive medical measures which are suitable for mass application must receive high priority. Parallel with them must go health education of the population and the development of habits

of personal and social hygiene. It is necessary to elaborate consistently on the removal of the sources of contagious diseases, and this must be carried on consistently not only in places where there are health centres and stations, but also in the surrounding villages. Adequate attention must be devoted to hygienic nutrition and to strengthening the human constitution and lowering the death rate. Maternity and pediatric services will be adapted to local conditions with the aim of decreasing infant mortality.

8. The Public Health Programme should be a mass programme, efficient and as inexpensive as possible. It will therefore be necessary to devote particular attention to the organization of health services, and to adapt them to the needs and psychology of the local population. In this sense the Public Health Programme must be a component of a wide Community Development Programme, which counts on the co-operation of the local community. Such local health centres and stations will, however continue to be under the direct supervision of the Ministry of Public Health. The Ministry will eventually ensure an adequate standard of health, and among other things the activity of the health centers will be co-ordinated, so that, in co-operation with the Central Statistical Office, the Ministry, will be able to provide vital and health statistics, which are indispensable for future planning and overall policy-making.

9. *The hospital facilities* have to be improved in the course of the Second Five Year Plan so as to reach the following number of beds and senior medical personnel:

Hospital Facilities

Number of:	1954	1959	Index (1954 = 100)
Physicians	219	320	146
Nurses	344	580	168
Dressers	1 155	1 868	162
Hospital beds	6 977	9 700	139
Leprosy beds (Segregation)	3 370	6 250	186

10. This extension of hospital facilities will be achieved by expanding the capacities of the existing hospitals in Addis Ababa, which at present have 1,982 beds, and the capacity of the existing hospitals

in the provinces, which at present have 4,955 beds, will be increased to all together 9,700 beds by the end of the Second Five Year Plan.

11. In addition to this expansion of the existing hospitals, four new hospitals will be established:

(*a*) A hospital and orphanage with a capacity of 1,000 patients for leprosy patients who require hospital treatment; ambulatory treatment for more than 20,000 leprosy patients, for 20,000 patients suffering from skin diseases, and for 60 orphans similarly afflicted;

(*b*) An infectious disease hospital in Addis Ababa with 40 beds, the task of which should be to to control epidemical and endemic diseases, and to treat infectious patients who have to be isolated;

(*c*) A tuberculosis hospital for the hospitalization of TB cases, with a capacity of 100 beds for adults and 25 beds for children;

(*d*) The Duke of Harar Memorial Hospital in Addis Ababa with 500 beds, which must have departments for surgery, gynaecology, X-Ray therapy, internal medicine, an eye ward, an ENT-Ward, a further pediatric section and an out-patient clinic with a capacity of 1,000 patients daily. This will be established in two stages; the first stage will be completed within the Second Five Year Plan, while the second one will be carried over to the Third Five Year Plan. If the erection of the hospital is not carried out in stages it will not be possible to carry on with the plan for improving the public health services in the provinces, the state of which is far below that of the same services in Addis Ababa.

12. The expansion of hospital facilities does not cover the whole field of public health services of this kind. It concerns only those hospitals which are under the direct supervision of the Ministry of Public Health. The Ministry of Interior, which is still entrusted with a certain part of the public health services, will extend its network of hospitals and clinics by about 300 new beds. In addition it is to be expected that improvements will be made in the existing 27 private and missionary hospitals and the 115 private and missionary clinics, which have about 1,700 beds.

13. *Other Facilities.* — In order to meet the main requirements

and tasks in the field of treatment and prevention of the major communicable diseases the following concrete measures will be undertaken during the Second Five Year Plan.

(*a*) More than ten million people are exposed to the risk of malaria, which thus forms a most formidable and serious public health problem in this country. The number of deaths occurring from this single disease is greater than the total number of deaths from all other diseases combined.

(*b*) With a view to exterminating this scourge, the Government has planned country-wide malaria eradication on long-term basis and is implementing the same on a 5 year period basis. At present, 10 sector-operational units in ten fields have been established to protect an estimated population of about one million. During the next five years it is proposed to increase the coverage of population as follows:

Year	No. of Sectors	Population Protected
1955	10	1 000 000
1956	26	2 600 000
1957	36	3 600 000
1958	62	6 200 000
1959	84	8 400 000

To provide staff for this programme, national personnel will be trained for field positions in the following order:

Year	METC Graduates	Professional Level Staff
1955	140	32
1956	254	36
1957	305	50
1958	309	58
1959	309	58

A certain proportion of this staff will have advanced training abroad.

It is expected that by 1959 about 60% of the malarial areas of Ethiopia will be under D.D.T. spraying, and the incidence of malaria is expected to drop to a low level by that time.

(*b*) Because of the yellow fever epidemic in 1951 (E.C.) a large number of the population is still in danger of contracting this disease, since only about one million of the people have been protected by vaccination and other control measures. Vaccinations will be continued in the coming years in order to avoid a further spread of the deadly disease and about three million of the population will be vaccinated at once, but vaccination will be extended in due course to as large a number of people as is necessary. To support and make possible this important undertaking a yellow fever vaccine production plant will be established, with a capacity of four to five million doses a year.

(*c*) During the last five years an increase of cases of active tuberculosis has been reported throughout the country, which indicates a progressive extension of the disease. An efficient control of this malady will be undertaken and will require the following action:

(*i*) A mobile X-Ray Unit with five cars, including a laboratory, will be attached to the TB Control Project for an epidemiological survey on TB, beginning in 1955 and continuing throughout the whole Five Year Period.

(ii) A new TB hospital with 1t ,

(iii) BCG vaccination will be continued and extended to all parts of the country, regardless of how remote the areas may be.

(*iv*) Regional TB Centres for diagnosing and treating large numbers of patients will be established within the existing health facilities in various Provinces, the first will be established in Jimma, Dessie, Yirgalem and Soddu.

(*v*) TB Control measures, however, will eventually be integrated into the basic health services, since in order to bring this disease under control the struggle against TB will have to be carried out over a long period and on a thoroughly decentralized basis.

(*d*) The Leprosy Control, which is at present based on a country-wide system of out-patient centres will be effected mainly through the health centres. The immediate objective will be to reduce the incidence of leprosy by providing adequate treatment facilities, to train sufficient auxiliary staff, and to educate the public, in order to prepare the ground for the extension of work in leprosy control.

(*e*) Quarantine Service will be strengthened in accordance with international regulations, especially at the international airports of Addis Ababa, Asmara, Dire Dawa, and Jimma.

(*f*) In order to reduce the present high infant mortality, the following measures will be taken during the planned period:

(*i*) Expectant mothers will be taken care of by the health centres. Mothers will be checked carefully during pregnancy and necessary measures undertaken to assure a safe and normal delivery.

(*ii*) The health centre staff will assist in delivery, preferably in the home, but if complications are expected, assistance will be given in health centres or the nearest referral hospitals.

(*iii*) Post-natal care will be effected by the health centre staff in order to see that the mothers are giving the best possible care to their children. By organizing motherhood classes for all the mothers of the community the health centre staff will teach the mothers the principles of good maternal and child health, proper nutrition, and other related subjects.

(*iv*) Adequate baby clinics and home visiting follow-up will be an important feature of the maternal and child health services run by the health centres.

Financing

14. In order to finance all the planned public health services under the supervision of the Ministry of Public Health, an amount of Eth. $180.9 million has to be allotted to the Ministry's five-year budget. The Central Treasury has to provide the Ministry with Eth. $114,3 million, out of which Eth. $94.6 million will be used to cover the recurrent costs, while Eth. $19.7 million will be used for capital expenditure. In addition to this, foreign sources are expected to contribute Eth. $42.4 million for the recurrent costs and Eth. $19.2 million for capital expenditure.

15. It is necessary to point out that the population is willing to support the improvement of public health services foreseen by the Second Five Year Plan on a voluntary basis. To establish the Duke of Harar Memorial Hospital its contribution amounted to over Eth. $5 million. Other projects and public health undertakings could be supported by the population and the community, especially when contribution in kind is called for.

Organization

16. In order to improve Public Health Services on a country-wide basis, the following organizational and administrative measures

will be taken:

(*a*) The existing health-legislation sets up the Ministry of Public Health as the regulating and co-ordinating agency of all health activities in the Empire, but in practice the present legal provision has certain flaws. The weaknesses which are caused by these shortcomings will be remedied by revised health legislation, which must of necessity ensure that the Ministry of Public Health is the sole co-ordinating agency of Medical Services in the Empire. This will ensure uniform standardization and avoid duplication of services, which would otherwise result in inadequate planning and unfair competition concerning the employment of professional and auxiliary personnel, etc.;

(*b*) Provincial Public Health Departments will be established in the Provinces, and each Provincial Health Department will be responsible for the administration and servicing of all hospitals, health centres and health stations within the Province. It will have at its disposal a well equipped central laboratory, in order to perform the necessary public health examination and tests, and a medical supply depot.

(*c*) The Public Health Demonstration and Evaluation Project will provide, on the basis of studies in selected areas, information concerning the effect of the average health centre programme in Ethiopia in terms of reduction in the infant mortality rate, improvement in sanitation of the environment, changes in attitudes towards health practices, and other factors under study. It will demonstrate the effect of optimal supervision concerning the work of one of the health centres in the study group, in order to determine whether the added expenditure of time, effort, and money that are necessary for this supervision are warranted. The training of a team of health personnel in the techniques of evaluative research will be included in this project, which must continue its activities over the whole period of the Second Five Year Plan.

(*d*) The health centre staff will be advised and guided in establishing an integrated health service at the local level by providing a supervisory team for the health centres, consisting of a public health officer, a sanitary engineer a public health nursemidwife. If possible more than one team will be used, utilizing especially trained Gondar graduates who have had the appropriate training and adequate experience. The teams will make sure that the activities of the health centres are properly co-ordinated in the provincial and other health services, and elsewhere in the general community development scheme, so that their services are utilized in such a way as to give maximum benefit to the population. This project is important in order to supervise the newly established basic health services; it will also be needed for a longer period, until all the provincial public administration departments are fully established.

(e) The out-patients treatment in rural areas without medical facilities, especially in emergencies, and the survey which will be used for improvements in different aspects of the public health services, will be carried out by a clinomobile service. This service will play a significant role in the health education of the public.

17. For the private practitioners already established no special arrangements or restrictions are to be expected, but the Ministry of Public Health will set minimum standards to be observed by all the Health (including medical) Institutions. For subsequent applicants, other areas of need will be indicated by the Ministry. In the case of epidemics and emergencies the Ministry will expect the co-operation of private practitioners with local health authorities as stipulated in the health legislation.

Chapter 20

EMPLOYMENT

1. According to the number of inhabitants, even though she ranks among the largest countries in Africa, Ethiopia is not densely populated. This fact has manifold economic significance, particularly with respect to labour availability. It is necessary to note that Ethiopia has at her disposal a relatively large reserve of manpower. In spite of the low density of population the labour force cannot by any means be treated as a scarce factor in economic development. On the contrary, manpower is one of the most abundant factors to be used to accelerate economic progress.

2. The fact that a large part of the people earn their living from agriculture is the fundamental characteristic of the economic and social structure of the Ethiopian population. According to an estimate which was made in 1954 the agricultural population constitutes 90 per cent of the total population. Its share in the active population is even larger. Out of the total of 11.2 million active population, 10.4 million or 93 per cent are employed in agriculture. This indicates the great reserves of manpower which could become the most important factor of economic development. It is a well known fact that economic progress changes the economic structure of the population by reducing the portion of the agricultural population and increasing the non-agricultural one. These changes are the result and a condition of economic development, but are of a long-term nature, therefore all the benefits to be derived from the changes in the economic structure of the labour force are not to be expected in the course of the Second Five-Year Plan period.

3. The change in the economic structure of the population is linked with industrialization and caused by the accelerated development of other nonagricultural activities. The forthcoming five-year period presents a basic phase of a long-term process of economic development and therefore it cannot bring about essential changes in the composition of the labour force. During this period the long-term process experiences its maximum acceleration in an economic sense,

as well as in respect to employment. In connection with this, the labour force as it is and as it will become during the coming five years, should participate as much as possible in agriculture, but should also prepare for the development of those sectors which, according to the Second Five Year Plan, are of a propulsive character.

The Agricultural Labour Force

4. One of the important tasks of the Second Five Year Plan is to utilize more fully the manpower in agriculture. This must be accomplished by applying three different methods (a) by intensifying agricultural production on the small farms; (b) by utilizing agricultural manpower from time to time on local and regional public works and (c) by developing large-scale commercial farms. By applying these methods the agricultural labour force will become a significant factor in the acceleration of the total economic development of the country even during the coming five-year period.

5. *Labour Force on the Small Farms.* — Better utilization of agricultural labour on the small family farms depends to a large extent on the synchronization of the measures applied to promote agriculture in the small-farm sector. The intensification of human labour in agriculture should be assisted by introducing more intensive cultures in those parts of the country which have a favourable climate for cultivation, by supplying better seeds, and particularly by introducing modern agricultural methods. Agricultural labour when engaged on a large scale is inseparable from the process of advancing agricultural production, and intensive utilization of agricultural manpower in agriculture presents an integral part of the measures needed for modernizing agriculture. All the agencies concerned should therefore devote attention to this development process, viz., the Agricultural Extension Service, the Community Development Programme, the Veterinary Service, and others. The utilization of improved tools and techniques in agriculture demands, inter alia, adequate training of manpower. The farmer will have to master new technical methods so that their use will result in increased and better production. The success of these operations depends in a large measure on the way in

which knowhow is spread and how the improved tools and implements are used. In this respect an important role will be given to the various projects which will promote production and at the same time instruct the farmers to handle the up-to-date agricultural implements. It is necessary to begin to organize these projects as soon as possible, so that the results in the intensive use of the labour force will be achieved in the coming five-year period. Priority in training agricultural manpower should be given to those regions which are expected to contribute most to the increase of agricultural production.

6. *Large-Scale Farming.* — The establishment of modern large-scale farms which is anticipated by the Second Five Year Plan will require that the additional employment be adjusted to up-to-date and mechanized farming. This kind of employment differs entirely from employment on the small farms of a family type. Due to its organization and division of work, equipment as well as skill are needed. It has been estimated that during the next five-year period total employment in this sector will increase by about 4,600 people or 3.5 times as many as in 1954. The increase in managerial, administrative, technical, and supervisory personnel is estimated at 1,400, while the labour force is estimated to rise by 3,200.

7. It is expected that the technical personnel as well as the supervisors will be recruited from the graduates of the existing agricultural college and the secondary schools, and the administrative personnel from among other high and secondary school graduates. To train and provide experience to this personnel, facilities should be provided by the existing large agricultural undertakings in practical work and managerial training. In addition, the Bahar Dar Technical School will provide technicians who are needed to operate and maintain the agricultural machines. As to the agricultural workers and particularly the tractor drivers, machine operatives, maintenance personnel, and others, they will have to be trained on the existing large farms and in the technical school. Special training courses will also have to be organized for other kinds of labourers needed for large-scale farming.

Nonagricultural Employment

8. Due to the growth of the nonagricultural sector in the course of the Second Five Year Plan, particularly the directly productive industries and social services, nonagricultural employment is expected

to increase much faster than it did during the First Plan period. Owing to the lack of employment statistics, the total estimate of non-agricultural employment growth has not been worked out, and in particular the increase of employment in the unorganized sector of the national economy, small trade, catering, small-scale building and construction, personal services, etc. have not been assessed. However, the growth of workers and employees in the organized sector had been estimated within the framework of the elaboration of technical-economic studies. This is, in fact, the most important section of new employment becauses it has to carry on the most responsible tasks with regard to economic and social development.

9. *Industry*. — During the 1954 - 1959 period the number of persons employed in the manufacturing industry, mining, and electricity, should double. The largest increase of employment is expected in the manufacturing industry, which presents the most propulsive sector for creating new employment opportunities. However, although it is relatively very large, the increase of employment in this sector is modest in comparison with the total increase of employment in the course of the next five years, which will amount to about 34,000 people, or 3.4 per cent of the total active population.

10. The new employment which will be created during the coming five years in mining, power, manufacturing, can be occupied only by persons who possess adequate qualifications. The character of the qualifications and the jobs in these activities, as well as the economic results which are anticipated, do not permit that success be jeopardized by the use of inadequate manpower. This refers equally to the administrative and technical personnel and to the workers. In the total of about 34,000 persons who will be employed in these activities there will be about 3,600 administrative and technical personnel, or about 11 per cent. The majority of the technical and administrative staff to be employed should come from technical and special secondary schools, colleges and universities. It is necesary for this personnel to be educated in time, so that a lack of personnel will not imperil the realization of the investment and other tasks in the respective acivities. Of over 30,400 operatives and supervisors who will be employed in these activities, the majority will have to achieve certain skill previously while part will be able to train on the spot. Special attention will have to be devoted to the training and developing

of foremen and supervisors on account of their roles in the functioning of the new industries. This large and difficult task will to a certain extent be facilitated by the fact that the majority of new employment is expected after the third plan year, therefore there is sufficient time to undertake the necessary measures for education and training.

11. *Other Sectors.* — It has been estimated that in the 1954 - 1959 period the increase of employment in other sectors of the economy, such as transport and communications, commerce, handicrafts, catering and tourism, will rise to 130,000 persons. These activities will develop mostly on the basis of private initiative, where small business occupies an outstanding place. This naturally facilitates the training of personnel for these activities, the more so since the increase of employment will be spread throughout the country. It is a favourable circumstance also, that big enterprises like the railways, telecommunications, P.T.T. services, and large-scale catering will themselves be able to provide the necessary personnel on the basis of experience attained in former years and with the existing training facilities. Meanwhile, it will be necessary to devote full attention to employment in new building enterprises, especially in order to qualify, in the shortest possible time, graduates from the respective colleges to carry out larger-scale building, construction, and designing.

12. *Public Works* on a large and labour-intensive scale of national, regional, and local character are a very efficient method of additional employment of the rural manpower. This method is well known in many countries and has produced very encouraging effects in many respects. Work carried out by inexpensive rural labour should be extended to the construction of roads, schools, hospitals, local water supply, soil amelioration projects, afforestation, etc. The benefits of this kind of infrastructural work and of other similar investment projects are manifold. It must be primarily pointed out that capital, as a scarce factor in economic development will be partly substituted by labour, whereby the major part of investment works will increase. In this way projects needed for the development of educatio[illegible] public health, local transport, water supply, etc. will be carried out in the most inexpensive manner. In addition, the boundaries of the domestic market will be extended and contribution will be made to the process of monetizing subsistence agriculture. In some cases, particularly in

road construction, this method will contribute to a saving on imports of expensive equipment. Supplementary employment of the rural population also contributes to an increase in the labour efficiency of the people by introducing new knowledge, which also has positive psychological effects. This is a very important consequence of the labour intensive schemes, which may bring future employment to rural manpower in industry and other nonagricultural activities.

Government and Social Service Employment

13. It is expected that the number of persons employed in the Government and Social Service institutions will increase by about 12,000, and that the largest increase of new employment will be in education and public health, considering the significance which is given to these activities in the coming five-year period. The expansion of employment in the Government institutions has to be very moderate and restricted, so that it does not cause an undesired increase in Government expenditure, and imperil the planned distribution of the gross national product, with adverse repercussions on the volume of investments and the pace of the economic development of the country.

14. The major part of the new employment will have to be covered by the existing secondary schools and the University. It is anticipated that the needs for primary school teachers and elementary medical personnel will be provided for by extended education. Much more attention will have to be devoted to the education of highly qualified Ethiopian personnel, especially professors and physicians, so that the number of foreign experts will not increase with the growth of those social services. Concerning public servants it is necessary to emphasize that although their number will increase only slightly, significant improvement must be accomplished in all sectors of the administration. It will, therefore, be necessary to encourage further training and education of the existing personnel, primarily by evening classes and special courses which should be continued at the University in agreement with the respective departments. In addition, all the Ministries and Government Agencies should organize in-service training and specialized courses for their personnel and base promotion on the knowledge and skill which can be achieved by these methods.

Employment Policy and Training

15. It is necessary to emphasize that an adequate solution of

the labour force problem is the key to the realization of the programme of economic development of the country. The training of the newly employed officials and workers is therefore an extraordinarily important task, which at the same time is very complex. If a relatively easier and spontaneous process of training can be assumed for small businesses in commerce, handicrafts, catering, and to a certain extent transport, the same cannot be said for industry, mining, power, the organized agricultural sector, social services, and Government institutions. Here the participation of educated personnel in the anticipated new employment is relatively high. The whole school system must therefore be adapted to the needs of economic development in order to provide the necessary number of persons with adequate qualifications in as short a time as possible. This is the fundamental condition for achieving the planned targets of economic development and the only way in which economic development will rely upon domestic experts. It is, however, necessary to assume that in the course of the next five years the training of personnel will fall behind the needs of economic development and the development of the social services. In addition, in the next five years Ethiopia will still have to depend on the aid of friendly countries in respect of qualified personnel. For this reason an efficient policy in the employment of foreign experts will have to be carried out, because they will be expected not only to execute current economic work but also to contribute to the training of Ethiopian personnel. In the forthcoming period the school system will have to secure domestic middle and highly qualified personnel, so that the need for foreign experts may be reduced, particularly in industry, mining, power supply, and agriculture. It is necessary also to insist upon higher training and efficiency of domestic personnel as one of the fundamental tasks in the employment policy.

16. Recruiting and qualifying the workers who are needed for the new industries presents an important component in the implementation of the Second Five Year Plan. The employment policy in the course of the Second Plan cannot rely only on the systematic training of the young people for their future jobs, but has also to reckon with the employment of adult persons who do not have the necessary general and school qualifications, and whom it will be necessary to

train for new jobs before employing them. Naturally, this is a handicap to all the new industries, the technology of which is not yet known in the country. This circumstance, however, does not imply that the Second Plan's tasks cannot be realized owing to a lack of skilled workers. Recent experience has shown that Ethiopian workers acquire skill in their new jobs very quickly, as has been proven in the textile industry, in the operation of large agricultural machines, and in the footwear, sugar and other industries. In order to shorten as much as possible the time necessary to adapt the workers to the techniques and machinery, the new industrial enterprises will have to establish corresponding training facilities. Parallel with this the Second Five Year Plan anticipates taking measures to instruct and train young workers regularly.

17. Special attention should be devoted to the training of young people in arts and handicrafts, those which will develop in the rural areas, as well as those which are of urban character. The village craftsmen should be instructed in those crafts which will develop after the introduction of improved tools and implements, better housing, water supply, etc. The programme of National Community Development and Agricultural Extension Service will have to be adjusted to perform this task, because they will jointly have to influence the advancement of village handicrafts. As for town handicrafts, it will be necessary gradually to oblige the craftsmen to take young people as apprentices and instruct them in the various handicrafts, so that they may acquire necessary skill and knowledge through practical training and supplementary education. Apprenticeship should be one of the methods of systematically training and preparing a new labour force during youth, which is undoubtedly the best and most efficient way.

18. *Managerial and Technical Personnel.* — Economic development depends largely upon the possibility of providing a sufficient number of capable executives. It calls for a considerable number of talented organizers of production, who cannot achieve capability in any regular school. Managers of factories and other productional units are recruited from among persons of various school qualifications, and as a rule they are not trained but selected. This has been proven by practice in all countries. If the choice has been well made supplementary education should complete the detailed knowledge, for which

it is necessary to utilize out-of-school methods. However, the selection of managers does not mean that it is not necessary to devote special attention to their creation in the schools. In the sphere of the university curriculum it is necessary to find a place for subjects which are necessary for executives in the economic development plan, whether for their higher training or supplementary education.

19. Selection of executive personnel is extraordinarily important for the fulfilment of the Second Five Year Plan of Ethiopia. Its significance is a consequence of two opposite components: first, the requirements of economic development are relatively very large, and secondly, there are no ready-made executives, so that selection is limited to potentially capable excutives who should be trained. Since the Government, as well as the private entrepreneurs, develops as a direct bearer of investments and economic development, its participation in selecting productional organizers and executives will be in proportion with its participation in financing economic development. In connexion with this it will be necessary to set up standards in selecting managers and other responsible executives in production.

20. Besides the administrative personnel it is necessary to secure a sufficient number of highly qualified technical personnel. Engineers and other experts have to organize the process and supervise production. It is estimated that during the 1954 - 1959 period the requirements of the economy and other activities for executive technical personnel will amount to about 300 persons. In order to qualify a sufficient number of capable executive technical personnel in time, any opportunities to send them to friendly countries for specialization will be taken, particularly for the new large projects within the range of the investment programmes.

Labour Legislation and Employment Exchange

21. With economic development, labour legislation gains increasing significance, as more people are employed labour relations become more complex, and consequently should be legally regulated. Steady employment is not only a present-day social demand but also a condition for achieving skill and qualification as well as more efficient work. It is therefore necessary to enact laws which will regulate the rights and obligations of the workers and employers. Legislation should also create conditions for establishing a system of apprenticeship in order to create qualified manpower, as well as to protect the

working youth.

22. Particular attention should be devoted to the establishment of employment exchange bureaux, because visible unemployment is spreading in recent years. In addition, the scarcity of qualified labour-technical operatives, as well as skilled workers, requires a better distribution of the available skills. Besides co-ordinating the planning of economic activities and education with a corresponding policy of granting scholarships for education abroad, the existing qualified labour force will have to be better utilized. The Government will therefore establish labour exchange bureaux whose task will be to study the causes of unemployment and the demands of labour, and to facilitate employment exchange. Labour exchange should not be considered as a measure of welfare policy, but as a means to advance economic development. This implies the co-ordination of the labour exchange with the development of various economic and social activities and the carrying out of studies and surveys which will facilitate the formulation of an employment policy.

Chapter 21

SOCIAL WELFARE

1. Social Security, housing conditions, local environment, and other services which contribute to the welfare of the population, form together the important components of the standards of living. The availability of the services concerned is closely associated with the level of economic development the country has attained. The need to improve all these aspects of life is very great, but the pace at which it is possible to proceed is basically determined by the speed at which the whole economy is able to expand. In the present stage of economic development in Ethiopia the standard of living as a whole should rise, so as to provide mainly for demographic changes, leaving also room for some increase on per capita basis. It means that the financial and other resources the Government will be able to engage for social welfare services are on a modest scale. However, with the policy of utilizing scarce resources in such a manner as to achieve the most desirable social results and with the maximum effort in the mobilization of all local resources as well as with the co-operation of voluntary organizations, it is expected that many achievements under the social welfare programme can be expected even in the next five-year period.

Social Security

2. The Social Security Programme is becoming more significant with the change of subsistence economy into monetary economy, and with the gradual disappearance of family organization of rural economy, yet this process has only recently begun, since at the beginning of the Second Five Year Plan not more than 210,000 workers and employees were employed. This is a very small population for calculating all social insurance risks; in addition the non-agricultural population is very heterogenous, with respect to its legal status and level and source of incomes. For this reason it is necessary to approach the introduction of a Social Security Programme with caution and only after due research and studies are made.

3. The research and the implementation of the Social Security Scheme should be carried out in three directions: (a) for public servants, toward creating a Pension Fund on the basis of proportional payments by the Government and the employees; (b) for workers and employees in public and private business, a Provident Fund

scheme is recommended which should be created by the participation of both employers and employees in the business; (c) for the professionals, businessmen and others, on a life insurance basis, in conformity with the principles on which the kind of insurance operates.

4. In a modern state social security is becoming one of the essential rights of man. Its introduction in Ethiopia is made difficult not only by a narrow demographic basis of those to be insured, but also by low personal incomes and limited possibilities for the Government's financial share. Nevertheless, Social Security must by no means be left to chance or private interests. The Government should take full responsibility, because it is the only authority competent to lead the right policy in the field of social security in respect of both its social and financial aspects.

5. On August 31, 1961 (G.C.) the Public Servants' Pension Decree was adopted, providing rights and obligations in this respect. The current old age pension scheme should be financed from the current State revenue as anticipated by the 1955 Budget. The total amount provided for this purpose for the five-year period is Eth. $ 12,096,000; this money is actually the State's contribution to the pension scheme, although it will be consumed over each current year.

6. The public servants' contribution is estimated to be 3 per cent of the total personal emolument per annum; this money should be allocated to the Public Servants' Pension Fund to yield the usual interest. It is envisaged that in this way the total amount to be directed to the Fund during the next five years will amount to Eth. $ 20,200,000. As a typical small saving scheme, the money provided for the Public Servants' Pension Fund will be used as a part of the Investment Fund for development purposes.

7. According to the Decree, the Government's contribution to the Fund would have to be larger by about Eth. $ 8 million. But owing to the great demand for funds needed for financing development and other projects planned for the next five years, this payment will have to be postponed and actually effected in the years after 1960. As the current expenditure estimates of the old age pension scheme are very rough, should the actual expenditure be higher than estimated, the Government will have to cover the balance within the possibilities offered by saving on other budgetary expenses. If, on the contrary, the actual expenditure is smaller than forecast, the

difference will be transferred to the fund immediately.

8. A Government Agency which will deal with the organizational, financial and other questions related to the Public Servants' Pension Scheme should take care of other aspects of Social Security. This agency will have to undertake necessary research on the basis of which early legislation concerning the introduction of a compulsory Provident Fund for those employed in bigger public and private business will have to come forth. The agency will also encourage the life insurance scheme among professionals and businessmen.

Housing and Urbanization

9. There is a lack of statistics to provide a basis for the proper assessment of actual housing conditions in the country. Nevertheless the essence of the housing problem is well known and two major aspects of it should be pointed out, (a) the unsatisfactory standard of traditional rural housing, and (b) the socially unfavourable housing conditions in urban areas, affecting the middle class and particularly the poor sections of the urban population. Here only the housing problem of urban areas will be tackled while the improvement of housing conditions in rural areas, which requires specific approaches, is dealt with within the community development programme.

10. Urban housing has recently been improved, especially in Addis Ababa and other large towns, but there has been a tendency to build expensive dwellings of a high technical standard, so that housing absorbed a large part of the total investments without producing the desired social effects viz. the improvements of housing conditions of large sections of the urban population.

11. At this stage of economic development the Government is unable to solve housing problems by providing a great share in the financing of housing construction. However, housing conditions being one of the most essential components of the standard of living, the Government should intervene in this very vital field of the human life. Government policies have to become an important factor in the rational use of available funds, aiming at the improvement of the housing of people who need it most urgently. To this end the following main objectives are set out for the Second Five Year Plan period:

(a) Inexpensive housing projects must be encouraged and given the fullest support. A suitable credit policy has to help by giving priority in the supply of inexpensive credits to the low-cost housing scheme, undertaken in the first place by municipalities and co-operatives;

(b) The different Government Agencies must begin to work out technical norms and standard designs for a mass construction of moderate and low-cost healthy dwellings, taking into account the need for utilizing cheap, traditional materials which are locally available;

(c) for the accomodation of technical and expert staff in the non-urbanized area where new bigger state development projects are to be erected (ports, mines, pilot farms) the necessary funds for house construction will have to be provided by the Government;

(d) legislation and other regulating measures have to be introduced to help the development of building activity;

(e) the letting relations between the landlords and tenants have to be prescribed by legislation in order to lay down clearly the rights and duties of both sides.

12. It has to be pointed out that the greater part of these funds will be spent on rural housing. From the Bank loans only Eth. $ 10 million are foreseen for housing, and this amount is reserved mainly for the construction of dwellings connected with development projects. The investment policy should favour the construction of low-cost housing projects, which will, together with the regulation of the leasing relations, undoubtedly contribute to the easing of the present housing problems.

13. The growth of the existing, and the creation of new urban centres that the economic development will bring about in the future, require that due attention be paid to town planning. Withing a broader framework of the regional development programme, town planning in Ethiopia has to be concerned with a proper arrangement of urban areas through the allocation of land for industrial, agricultural, residential, cultural and recreational purposes as well as with the development of communications, of the network of public utilities and other services. In this sense town planning constitutes an integral part of the national planning of economic and social development, and represents the only rational way of solving the complex problem of co-ordinating various activities and generating a healthy atmosphere in the life of the community.

14. To carry out all these tasks successfully in all municipalities

is obviously beyond the capacity of the material and human resources at this stage of development, and the whole programme has to be viewed as a long-term objective. However, a good deal of work should start during the next five years. One of the most important tasks would be to lay down, at first, general principles for the designation of land for industrial and other economic purposes on one hand and residential purposes on the other.

15. It is the municipality which is primarily responsible for the planning, organization and financing of the work in this field. The principle of self-help should be advocated extensively in order to exploit fully all available local resources. The Government should encourage and support the initiative of the municipalities in the field of town planning, and to this end, should see that all possible technical assistance and guidance is given to the municipalities in the matter of organization and working out of town planning projects.

Other Social Welfare Programmes

16. There is considerable need for organized social services to cater for the socially handicapped, rehabilitation of the beggars and disabled, juvenile delinquents, youth, woman and child welfare, etc. With the economic advancement of the society, with the rise of real incomes and cultural standards of the population, many of these needs disappear but some of them remain, others change their social impact and some even increase. However great are the requirements for giving the highest priority to the expansion of directly productive economic activities, various welfare services cannot be altogether neglected. The organized and planned action undetaken by the Government through its respective agencies not only aims at relieving human suffering, but also at showing the benefits of the Social Services that the rapidly growing economy will offer increasingly to society. This task has to be integrated into the development plans of Ethiopia.

17. The limitations of the available resources of the Government and the large possibilities of drawing on the voluntary services rendered by various associations of citizens, regulate the organizational pattern that has to be applied in this area. It is the Government that has the responsibility for setting out the social work policy in the country. The voluntary agencies, helped, encouraged, and co-ordinated in their work by the Government, will have to be, however, the main channels through which the implementation of the national

programme of social welfare will be sought. This applies equally to the municipalities whose position is similar to that of voluntary agencies, both in respect of financial means and the technical knowledge.

18. In addition to technical guidance and co-ordination, the Government will assist the various organizations by giving them financial help in the form of grants-in-aid, which are considered necessary for initiating and encouraging the amount of social work needed in the next five years. For this purpose a provision of Eth. $ 400,000 per year, or a total of Eth. $ 2 million for five years, is made. The principles underlying the policy of giving aid will be the following: (a) all social work institutions in the country must be registered with the Social Affairs Ministry; only organizations registered and approved will be given aid; (b) aid will be provided when the Ministry is satisfied that the proposed new programme or new institution is required to meet specific needs; (c) the aid is aimed at further stimulating the activities of voluntary agencies to raise their own funds; thus the agencies must continue their previous efforts, particularly since the aid is generally meant for new programmes on a corresponding basis; (d) as to the provision for various expenses, it is envisaged that the Government's financial help should cover up to 50 per cent of approved capital expenses, as well as up to 75 per cent in the first two years, and 50 per cent in the third to fifth years, of recurring expenses, while the rest should be covered by the voluntary agencies themselves.

19. Programmes for socially handicapped children and the rehabilitation of the physically disabled and beggars, are the types of social work for municipalities and voluntary organizations, which will enjoy priority in the Government's financial assistance during the next five years. In order to avoid duplication of work, the social welfare projects of the organizations such as Haile Selassie I Foundation, the Society for the Blind, the Social Service Society, the Fund for the Disabled and others, have to be undertaken in full consultation with the said Ministry.

20. In view of the extreme value of urban community centres in promoting the healthy and well-integrated development of the urban community on the basis of self help, five urban community centres will be establishred by the Government as pilot projects in different towns during the next five years. Each centre should serve about

3,000 families or 15,000 people, and in the beginning its activity will be limited to youth, woman and child welfare as well as to adult education. In establishing these centres, every effort should be made to mobilize local voluntary co-operation and so avoid all unnecessary budgetary expenses.

21. The rehabilitation programme of socially distressed persons should be also given its proper share in the Second Five Year Plan. The programme should consist of:

(a) rehabilitation of those socially condemned and thrown into jail. The Prison Authorities should see that the various trades and handicraft training given to the prisoners at the moment is well organized and undertaken in all such institutions. A system should be worked out whereby each prisoner is permitted, and is able, to save a portion of his earnings while serving his term of imprisonment. Such a saving will enable the individual to start life afresh after being discharged. This particular programme should be co-ordinated with the programme of settlement and economic development in general.

(b) the rehabilitation of youth so that delinquency and vagrancy among teen-agers is controlled and such youths are helped to become useful members of society. The achievement of this aim presupposes the proper reorganization of the existing remand home, and it will also be necessary for the Government to establish one or two new homes for delinquent children at selected places.

(c) The programme should give due attention to the correction and rehabilitation of socially disabled women. The energy and resources of philanthropic societies and welfare institutions should be combined to attack the problem by launching a rigourous campaign and working out programmes so that this female population can be rehabilitated and reclaimed for the development activities of the country.

22. The major aim of comprehensive planning is not only to raise the economic and social standard of the people, but also to bring about a cultural integration of the diverse population. Hence it is fitting to consider the assistance to be rendered to some of the backward areas inhabited by nomadic and semi-nomadic people to prepare them to participate in the development activities of the country. The

assistance may vary according to local conditions and necessities. It is also important to have thorough research on such communities during the Second Five Year Plan period to prepare the ground for specific assistance in future national plans.

23. Reliable data are essential for the assessment of the magnitude of the existing social problems, and for planning the social activities for the country as whole. Social research and surveys are to be undertaken during the next five years with the aim of providing information and adequate assessment of the physically and socially handicapped, as well as on methods for their rehabilitation.

24. Changes and amendements in the existing social legislation, such as the provisions for adopting children, the Vagrancy Act, the Children's Act, the Associations Act etc., are needed. New legislation is also needed in order to implement the programmes which will promote social health in general.

25. It is estimated that for the implementation of the objectives set forth in the field of various social welfare activities, a total of Eth. $ 3.6 million from Government funds will be spent during the Second Five Year Plan.

Out of this sum, Eth. $ 2 million will be extended to municipalities and voluntary organizations in the form of grants-in-aid. The remaing Eth. $ 1.6 million will be spent on capital and recurrent expenditure of the programme to be undertaken directly by the Government i.e. for the establishment and operation of urban community centers, homes for delinquent children and physically handicapped persons, as well as for research.

Chapter 22

COMMUNITY DEVELOPMENT PROGRAMME

1. The programme of community development is assigned an important role in the socio-economic development of Ethiopia in general, and in rural development in particular. The main purpose of these programmes is to unite the efforts of the people in the communities with those of the governmental authorities, to improve the economic, social and cultural condition of the communities, to integrate these communities into the life of the nation, and to enable them to contribute fully to the national progress.

Recent Experience

2. The community development programme was taken up as a result of the Order of His Imperial Majesty Haile Selassie I. No. 15 and 16 of 1957 (G.C.). Since its inception five years ago, the programme has been tried in 15 areas. The programme includes training of village-level workers, and so far 92 village-level workers have been trained. Some qualified young men were sent abroad for further studies in the field and 14 of them have come back and are actively participating in the programme.

3. The First Five Year Plan allotted a sum of Eth. $ 25 million for the community development programme; unfortunately, this sum was not appropriated due to financial difficulties and other factors. However, the Ministry of Community Development has managed to start the programme with its small budget of Eth. $ 1.3 million a year. The contribution from the communities is estimated at Eth. $ 300.000.

4. The activities undertaken differ from area to area, depending on the needs and circumstances of the villages of the Community. Some of the activities include building of village roads, construction of school buildings, digging of wells, advice and technical aid on animal husbandry, improvement in house structure, advice on better farming, gardening, change in dietary habits, hygiene, etc. A few District and Village Development Committees have been set up in some of the areas. The role of these Committees differs from place to place but the common task they perform is to co-ordinate the work in the Districts.

5. The programme of community development has not gone far

beyond the blueprint stage, but in spite of all the difficulties it came up against, it has shown some hope of change in the outlook of the people in the rural areas. People have come to realize the principle of self-help and self-reliance. In all the localities where the programme was taken up, the co-operation of the local people has been encouraging. This becomes clear from the fact that many members of the community have come forward, for instance, with a building erected by their own resources and initiative as a centre for community development activities. Some market places have been set up in a few centres, a number of community schools have been opened, and people have benefited from the experts' advice on animal husbandry, house maintenance, hygienic way of life, etc.

6. Though it is too early to assess the working of the projects, some useful experience has been gained and some difficulties have been encountered. One of the major difficulties in organizing community development has been a lack of co-operation and co-ordination of the various Government Departments in their specialized fields, the result of which was a duplication of work and waste of national resources.

Basic Tasks and Principles.

7. The basic tasks and principles of the community development programme in Ethiopia are the following:

(a) to mobilize the local resources, both natural and human, with the least reliance on the Government for assistance, in order to accelerate the socio-economic development of the community concerned;

(b) to make the people of the community realize the benefits of substituting new methods of production for the traditional ones, and thus to pave the way for a gradual transformation of the purely subsistence rural economy into one more monetized, capable of contributing its potential share to the economic growth of the country;

(c) to encourage the creation of co-operative societies in order to provide a wide and sound basis for an overall development;

(d) to provide basic education to the villagers in the fields of primary schooling, hygiene, nutrition, child care, housing, and organization to satisfy collective as well as individual needs;

(e) to encourage the people of the community to adopt the habit of self-help and self-reliance, and thereby change their psychological outlook of helplessness;

(f) to encourage the widening of the people's demand for higher standards of living in material as well as other spheres of social life;

(g) to make the rural community conscious of the importance of common aims and co-operative efforts;

(h) to increase the socio-economic development of the community so as to create favourable conditions for undertaking big projects and implementing them in these regions, and to ensure the most rational use of the resources supplied by the Government;

(i) to promote cultural integration of our diverse communities.

The achievement to be aimed at in the community development programme must be supplementary to the development projects initiated by the Government in improving the living conditions of the people.

8. It has to be borne in mind that it is only through a rapid industrialization of the country that firm foundations can be laid for a lasting upward trend in the social and economic development of the rural economy. In this process the community development programme will have to play an important role by creating favourable conditions which will enable the rural economy and its population to contribute more efficiently to the country's socio-economic advancement.

9. Economic and social changes are interrelated, yet if the possibilities for achieving quick economic results exist, the emphasis on the services to the rural community that will directly contribute to the improvement of economic activities may be decisive in setting in motion an accelerated socio-economic development in all its important aspects. The fact that the agricultural sector represents a big potential source of raising the national income in the years to come, calls for special attention to be devoted to the community development programmes in agriculture, with the aim of laying foundations for a speedy transformation of the traditional, subsistence agriculture into the more modern sector, without which the long-term sustained growth of the economy would not be possible.

This direction of the general policy is also suggested by the substantial rise in the quantity of agricultural output, with an accompanying increase of the real incomes of the rural people that can be expected through the introduction of comparatively simple new techniques and methods of farming.

10. While the meagre resources with which the Government can assist the community development projects will serve primarily for the advancement of agriculture and those activities which are more directly related to agricultural development, there will be plenty of room for local initiative in establishing the amenities that will lead to the improvement of general conditions of life in the rural areas. Those efforts will be encouraged and assisted by the Government within the limits of the financial means and trained staff available for these purposes, but above all through the provision of technical standards and designs for various work projects that could easily be used in different localities.

11. The choice of a proper strategy concerning the scope of the programmes in various stages appears to be an extremely significant factor for the success of the whole movement. It is important to realize that it is much more desirable successfully to accomplish the targets of a moderate, even small-scale programme, set for the next five-year period, than to embark upon a too ambitious campaign that may turn into many failures or at best bring about only very poor results. The soundness of this approach is strengthened also by the need for proceeding carefully in the choice of the organizational forms and programmes which will best suit the variety of conditions prevailing at local levels. Study, research and evaluation of the achievements and shortcomings, and the adjustments of the policies based on them, are indispensable if the community development scheme is to produce the most fruitful results.

The Programme in Various Fields.

12. *Agricultural Services.* — The basic objective, in common with other services of community development, is to educate and assist the rural people to use available resources more effectively. Owing to the extremely unproductive practices applied in farming, an important rise in agricultural production can be achieved if concerted efforts are made to teach the rural people (a) to use improved agricultural tools, (b) to use a new, more productive variety of seeds supplied to them, (c) to increase livestock production through the preservation of grass in various forms (hay silage), (d) to supply simple crop-rotation

patterns suitable to the local conditions of soil and climate and, (d) to start fruit and vegetable growing both for individual consumption and for marketing in the vicinity of towns. Planting trees and reafforestation, with its multiple benefits in terms of the protection of soil, provision of building material and fire-wood, moderation of the climatic conditions in the area concerned, should also be given full attention in the programme.

13. Attendant on these programmes will be the need for setting up small economic projects such as water mills, oil presses, nurseries for fruit trees and afforestation, which will make the community a more self-sufficient economic unit.

14. Marketing agricultural products, with the building of necessary storage facilities, should be promoted primarily through the village multi-purpose co-operatives, with the aim of speeding up the process of spreading an exchange economy in the rural areas and increasing both the productive and purchasing capacity of the people.

15. It is most important to realize that success in getting the rural people to accept new and more productive practices in farming is conditioned by adequately resolving tenant relations. As long as the tenant's share in the produce of his work is very small, one cannot expect, in the areas where these relations prevail, that the tenants will be stimulated to put in extra effort to learn and apply any advanced techniques.

16. *Health Services.* — In the field of health, teaching basic individual and household hygiene and the popularization of other sanitary practices are the most important objectives, which, if successfully achieved, will not only provide an indispensable basis for future action aimed at raising the health standards of the rural population, but will also undoubtedly contribute to the process of acquiring new and progressive mental outlooks by the people themselves.

17. While teaching the people hygiene, in addition to the practices of regular washing and cleaning, of having separate couches, cups, plates, etc. for each member of the household, of having properly arranged places for the disposal of waste, the villagers should in particular be told of the danger of cow dung and that of other animals. They have to be advised to abandon the prevailing practice of having animals living in places near or inside the houses where the people live. As to village hygiene, the people should be taught the danger

of stagnant water in the vicinity of their villages and how to overcome it. Simple laundry improvisations should be erected along the riverside in order to avoid washing in polluted water. An especially important task in this field will be to make the people aware of the danger of drinking polluted and dirty water. and it is imperative that the people in villages learn how o dig wells for drinking water wherever possible.

18. The advantage of a more balanced diet for the promotion of the people's health, and the health of children in particular, has to be brought home to the village families. They must be encouraged to produce and consume more vegetables, fruit, and milk. and thus improve their dietary habits.

19. In order to enable a continuous and well planned campaign for the dissemination of basic education in hygiene, nutrition, and sanitation, and to develop the necessary health services, such as the protection of the health of mothers and children, the prevention and control of communicable diseases, the treatment of the sick and disabled, a network of health units has to be established. As this imposes high demands for doctors and other medical staff, medical supplies and equipment, the number of health centres that may be expected to be set up during the five-year period 1955 - 1959 will be on a very modest scale.

20. *Housing and Handicrafts.* — The actual housing conditions of village families are so poor that any organized effort for their improvement not only brings about better standards of living in itself, but appears also to be an essential complement of the measures to be undertaken in raising the health levels of the rural population.

21. The process of changes in the construction of houses has to be started in the villages covered by the Community Development programme. To this end the designs and instructions for building standardized types of houses that will meet the requirements of the environment and are based on the availability of local building materials, must be supplied by the technical staff. Experience may even promote housing projects on a co-operative basis and further lead the co-operatives to extend their activities to the manufacture of building equipment from materials locally available.

22. Furniture, such as tables, chairs and beds made by the villagers themselves should be popularized for use in every household.

Clay work should be promoted wherever possible, and stoves made out of the locally available material should be encouraged, so as to introduce a substantial improvement in the ways of cooking and preparing meals in the village families.

23. Much of the success in changing the existing pattern of farming and house building will depend on the availability of skilled people in various crafts. There is such a lack of these people in the villages that thorough vocational training has to be organized on a regional level so that a sufficient number of craftsmen will be supplied to the villages covered by the development programme. Traditional home industries, such as weaving, basket work, pottery, etc., have to be encouraged to provide employment and increase the purchasing power of the rural people, while artisan handicrafts should be commercially organized, particularly those serving agricultural needs.

24. *Education and vocational training.* — In addition to primary schooling which constitutes a part of the general educational programme, out-of-school adult education and vocational training represent a field where most urgent needs are being felt. It is within the community development scheme that determined efforts are to be made to light the spark of knowledge and inculcate a sense of values and achievement into the minds of the rural people.

25. It is important to give the young people vocational training which will enable them to acquire elementary knowledge and know-how in the fields in which the community development programme is launched (literacy, farming methods and techniques, hygiene, home economics and certain skills). Only then, when some people in the village have already become familiar with the benefits of the changes that will have to be introduced into their everyday life, can more fruitful results be expected from the village-worker's activities. The village worker would then be able to rely on the co-operation of trained young people, a whole team of enthusiasts, to spread the Community Development Programme.

26. Villages where the programme has been successfully implemented could serve as demonstration centres for training new groups of young people. In the fight against backward, deeply rooted traditional forms of life it seems essential that, at an early stage, those villagers who have already developed new attitudes and outlooks be used extensively as living mass media in spreading the concepts of

advanced forms of productive activities and higher levels of living.

Organization.

27. An integrated approach to a given area by different Ministries acting as one unit for development has to be the basic principle underlying the organizational pattern of the national community development scheme. A team of technicians and a district development officer will be located at the Woreda headquarters. This team will be assisted by ten village-level workers. In the first instance therefore, the unit of operation of such a team of ten village-level workers should not be more than about 18,000 to 20,000 people. This proportion is adopted on the grounds that in most parts of the country communication is difficult, and that intensive work of a trained staff among villagers, a necessary condition for advancing successful results, will require frequent visits to the different villages. In each area of operation the Ministries of Public Health, Education & Fine Arts, Agriculture, Public Works, Ministry of National Community Development, supported by the Ministry of Interior, will work together, co-ordinated by the Ministry of National Community Development. This will ensure an integrated approach on the part of the Government in dealing with the community as an indivisible entity.

28. The operational technical staff charged with the direct execution of the programmes in the selected areas is made up of a technical team at the area headquarters and of village-level workers. The technical team consists of the district development officer as the captain of the team, and of the district officers, technicians and specialists in agriculture, health, education, social work and public work, as its members. The village-level worker is a multipurpose worker duly trained in the techniques of community development and organization, who is to be the forerunner of the district technicians, including and organizing the Community to co-operate in carrying out special programmes which the district technicians will have to initiate and explain. The district development officer, being administratively responsible for the execution of the approved programme for the district, is authorized to supervise and guide the work of the village-level worker and to co-ordinate the work of the district technicians who, in technical matters, are supervised by their respective Ministries.

29. The programme for the period 1955 - 1959 envisages that a total of 40 - 50 Woredas, with some 800,000 - 1,000,000 people, will be

covered by the community development projects. The coverage could gradually extend in accordance with the planned increase of trained staff, so that the planned number of areas under the programme should be reached by the end of the planned period.

30. Great care has to be taken that the selected areas are normal communities with reasonable chances of success of the programme. This is an important principle for the start when one has to learn about the most adequate techniques to be applied in this country, and when quick results should enable these first districts to be used as demonstration centres.

31. The process of co-operation in planning and administration between different Ministries has to operate from the Central Government through a provincial and Woreda administration right down to the unit level. The Ministry of National Community Development is only the administrative and organizational channel through which the technical Ministries implement their programmes. Thus the agricultural, educational, and health programmes undertaken at the unit level are not the programmes of the Ministry of National Community Development, but of the National Government and particularly of those technical Ministries concerned with the programmes.

32. It is proposed that a National Board of Community Development be appointed to lay down general national policies pertaining to community development, to initiate all the activities needed, and for the proper execution of the programmes.

33. For co-ordination at all levels, central, district, and village co-ordination committees will be set up, these latter having officials, as well as 5 to 7 selected non-officials as their members to present the views and opinions of the people of the area concerned.

34. To spread the ideas of the community development pragramme among the rural people and to facilitate their co-operation in programming and building the projects, village associations such as Iqub, Eder, Mahber, as well as youth and womens' organizations will have to be called upon to give their full support.

Government Assistance and Financing.

35. In the programme of community development the fullest mobilization of available local resources, such as labour, material and cash, must be the underlying principle, and Government assistance is to be looked for only when and where it is indispensable and

essential. However, at this initial stage, Government assistance, organizational, material and financial, will have to play an important role in setting in motion the dormant potentialities of the communities.

36. Government financing of the national programme implies that each of the selected districts will be allotted a certain sum yearly for working funds and a lump sum for the whole five-year period, to provide for non-recurring expenditure. Thus, the use of these funds is not earmarked for particular projects in advance at a national level. It has to be originally specified in the district programmes according to the needs felt by the people in the respective areas.

37. The total financial resources to be employed for the programme of the Ministry of Community Development during the next five years would amount to Eth. $ 25.5 million, out of which about Eth. $ 14.7 million will be recurrent expenditure, while Eth. $ 10.8 million will be used for investment purposes. The above sum is apportioned as follows:

		Eth. $
	Recurrent	Investments
Community Development	10.020.000	9.866.000
Training of Community Development Programme	1.504.000	153.498
Social Welfare	2.625.000	675.000
Training for Social Welfare Programme	282.000	10.502
Labour Exchange	344.000	68.000

38. One of the most desirable aids that the Government can give at the initial stages of the community development programme is by establishing a network of model farms, such as those already set up by a Government Agency at Awassa and Gibbe.

These projects form a part of the programme of agriculture but wherever possible they should also serve to demonstrate advanced forms of farming techniques to the villagers, and as a place for training development workers and young agriculturists.

39. It must be kept in mind that a national programme of this nature will remain only a blueprint unless an adequate number of professionally trained people is provided in all the fields over which the programme extends. Due regard to this aspect is paid in this Plan by making necessary provision to train some 900 agricultural

technicians, and 175 agricultural experts who should be college graduates, in order to meet the demands of the programme for the next five-year period.

40. Finally, if the Community Development Programme is to succeed, and if the maximum use of the limited resources of men, money and materials is to be made, planning must be undertaken at the village level by the people, assisted by the District Team. The Plan must spell out clearly the community contribution and state the nature of Government aid required. These village plans must then be co-ordinated at the District level and later at the National level. The final Plan must reflect realistically the best use of Government resources in different Community Development Districts and the programme must be executed according to a time schedule worked out in the final Plan.

Chapter 23.

REGIONAL DEVELOPMENT

1. Regional Development constitutes an integral part of the over-all planning of national socio-economic development. Even if this aspect is not explicit, it is still present in the chosen pattern of a country's development.

The absence from the plan of a regional approach leads to territorial distributions of production, social services, and population, which as a whole, cannot be considered rational or desirable either economically or politically.

Thus, in order to make planning contribute more efficiently to national socio-economic advancement, the regional aspect must be clearly stated and it must become one of the basic criteria in fixing development targets.

2. The choice of an optimum pattern of regional development is a complex task in itself, yet it necessarily assumes new and specific features when the peculiarities of Ethiopian conditions are to be fully reflected. By its nature regional development belongs to the sphere of long-term economic development. It is only in this setting that one can get a full picture of the benefits of Regional Planning. However, we must begin by assessing, as precisely as possible, the actual potentialities of each region, to be able to determine what can be the contribution and role of each region in the long term economic development of the country.

3. The assessment of the potentialities of various regions in Ethiopia for the country's economic growth are still in the initial stage. Prospecting for mineral and other underground wealth has so far covered only a small part of the vast Ethiopian territory. Though research and study have progressed more satisfactorily in the field of agricultural development in general, espcially in production, forestry, and hydro-electric potentialities of rivers, the area covered has remained limited and much more research has to be done in order to complete the picture. It would therefore be premature to work out a complete pattern of regional devlopment unless more information and knowledge on the country's actual potentialities are gathered. This has to be an important field of research, and in the period of the Second Plan more extensive work in that direction has to be continued.

4. The incompleteness of available statistics, however, does not preclude the possibility of making a beginning in regional planning in the Second Five Year Plan. The existing knowledge of the factors such as the size of the national territory and its basic geographic features, climatic conditions, the land, the communication pattern, the distribution of the population and the existing urban settlements, forms a framework within which an approach to regional development planning may be made. In this stage only some basic principles, which appear economically justified in the light of the facts known and which, in themselves appear as a logical and rational step in the elaboration and implementation of a consistent long-term regional development scheme, may be laid down.

5. Ethiopia is a vast, relatively underpopulated country with an uneven distribution of natural conditions for economic development. In such conditions transport assumes an important role and ranks among the most significant criteria when deciding on a regional pattern of economic development. Due to the long distances over which goods have to be conveyed, transport in Ethiopia has to be considered as a factor which tends to retard economic growth. Today the length of the route which one ton of goods has to travel between the producing or importing point and the consuming point amounts on an average to approximately 700-800 kms. In many cases transportation costs exceed production costs. Thus the economy and the achievement of optimum economic results on a nation-wide scale depend to the greatest extent on the minimization of the transport cost. This can be achieved if, to the greatest possible extent, the principle is adhered to of concentrating modern economic development in the economically most promising regions.

6. The main features of Ethiopian geography and land, point to that regional pattern of economic development which, among other things, also provides for an optimum shortening of transport routes and consequently for the minimization of the transport costs. Due to the significance of the production of raw materials in agriculture and their industrial manufacturing at the speed at which the Ethiopian economic growth would require, it appears that the river valleys stand out as regions whose development offers the most promising effects.

7. The research which preceded the elaboration of the Second Five Year Plan shows that an abundance of favourable factors makes the belt Shashamane-Nazareth-Awash-Tendaho-Assab one of the regions, having already some initial scattered development activities and communication facilities started — which deserves full attention in the Second Plan. There are ample possibilities for increasing the effectiveness of investments by bringing closer together the agricultural and the relevant industrial production, as well as by developing a network of complementary industrial undertakings. The development of agricultural production in this region will have to play one of the decisive roles in the fulfilment of the Second Plan's targets envisaged for the production of cotton, sugar, wheat, and livestock (in the areas bordering the belt). Accordingly, new industrial projects for processing the agricultural products will have to be established in the same region. The concentration of production activities will also bring about a concentration of consumers, so that not only the shortening of the routes for goods in process but also for the finished goods from the producers to the consumers will be effected, and thus a substantial part of the national income will be saved. By the same token the need for expanding the communication network will be reduced and it will then be possible to develop communications so as to cater for a large traffic and thus achieve better economic results with smaller investments.

8. Besides the Awash Valley, research has to be started in the Wabi-Shebelli and Blue Nile Valleys in order to assess the potentialities of these major river valleys. This research together with those which will cover the other river valleys, should provide a basis for the full elaboration of a scheme for the development of those economic regions which are built up around and along the main river valleys. It seems most probable that due to the accumulation of a number of favourable factors, these regions will constitute a coherent whole within which the largest part of the process of integration in Ethiopian economy will take place.

9. Geography has made the vast area known as the High Plateau quite homogeneous with regard to its natural and economic characteristics. It is a region that extends at a fairly uniform altitude, between two or three thousand meters above sea level. The fact that the plateau is bordered by many steep slopes has made this vast area virtually

an isolated territory, particularly as there have been no roads to give easy access to it. Yet this is the part of Ethiopia which is most densely populated, with very favourable conditions for the production of wheat and for raising livestock, sheep in particular. Afforestation can greatly protect this area from wind erosion and improve the water supply, which depends mainly on rainfall. The potentialities of this region for increasing agricultural production and building adjacent small-scale and other industries for the conversion of agricultural produce into processed food should not be neglected, and will have to become the subject of a special development scheme. The construction of roads will have to constitute the first phase in activating the economic potentialities of this region.

10. There are other regions — such as the forest-coffee production area — whose position is determined by the peculiarities and significance of their output to the national economy. Similarly future intensive prospecting for mineral wealth may open new promising industrial development areas outside the river-valley pattern. This will make it possible that in the future development plans, decisions concerning the allocation and timing of the investments may be based on a more elaborate scheme that points out the priorities and will thus contribute to the optimum growth of the economy.

Chapter 24.

DEVELOPMENT OF MUNICIPALITIES

The Municipality of Addis Ababa.

1. *Recent Development.* — In its efforts to discharge its responsibility in organizing and developing services necessary for the improvement of the living standard of the city residents, the Municipality of Addis Ababa has often been handicapped by the insufficiency of funds and the shortage of qualified personnel. Despite these and other difficulties, however, the City Administration has managed to undertake some conspicuous development programmes and services. The following are some of the major activities completed within the last few years:

(a) to supply the city population with safe and clean water the Gafarsa Dam has been built and is at present in full operation;

(b) a number of highways, for heavy truck use, and many smaller roads and side streets have been opened and are giving their full service to the city's growing fleet of vehicles and pedestrians;

(c) public squares and parks, children's playgrounds, public conveniences, rehabilitation centres for the poor, mother and child welfare clinics, cemeteries, market stalls and shops and car-parking places have been established;

(d) sectional land surveys are being carried out regularly and thousands of title deeds have been issued to enable proper identification of individual plots and properties. A project that deserves special mention in this respect is the completion of cartographical aerial photography of the entire City, which was so vital for the preparation of an accurate map and development plan of the city;

(e) a population and housing census which provides ample information necessary for the establishment and improvement of social and economic programmes was effectively carried out in 1953;

(f) to meet the need for a centralized office building for the City Administration the Addis Ababa City Hall is in process of construction;

(g) a large municipal market to provide shopping facilities for the public is in its final stage of completion.

The great cost that these two investment projects entail is justified by the significant role they will play in the growth and development of the city.

2. *Development targets.* — For the period of the Second Five Year Plan the Municipality of Addis Ababa will continue to improve all existing programmes and services. The overall development of the city will influence and require the expansion of different technical and social activities.

3. In technical services the construction of new roads of a total length of about 20 kilometres are anticipated. The improvement of the surface will include approximately 22 kilometres of existing roads. Water canals will be provided along the roads referred to in the length above. The expenditure for this road development is estimated at Eth. $ 32 million.

4. In order to alleviate the ever-increasing city traffic, new parking areas will be designated and developed on the main roads and squares of the city. The expenditure for this purpose is estimated at Eth. $ 6 million.

5. The construction of a Municipal market building which is in progress in the Addis Ketema District will be completed and subsidiary market places will be erected in different parts of the district. Plans have been completed for Municipal markets to be installed in such parts of the city as are directly accessible to highways leading to the provinces. The cost will arrive to some Eth. $ 500.000.

6. In addition to the existing St. Joseph Cemetery on the Debre-Zeit road, the plans for four additional cemeteries to be developed in appropriate parts of the city will be completed. One of these, Gullalie, will be ready for public use before the end of the five-year period. The costs of this work will amount to Eth. $ 1.5 million.

7. Certain localities have been earmarked to be developed for parks and green areas and the plan of these areas will be completed during the coming five years.

8. As industrial plants, hotels, hospitals and other such establishments increase in number, and as the standard of living in the city improves, the need for greater water supply is becoming more serious every day. Accordingly it has been found necessary to construct another dam that would meet the growing demand for clean and wholesome water. The proposed dam which has a capacity of fifty million cubic metres will be able to distribute up to 90,000 cubic metres per day. Subsidiary reservoirs will be constructed in several districts of

the city and pipe lines laid out. The cost of the construction of the above-mentioned dam, reservoirs and pipe lines in estimated at Eth. $ 15 million.

For the increased distribution of water from the existing dam, seven additional reservoirs and pipe lines will be installed in some districts which have not yet been able to use good clean water. It is estimated that this work will cost Eth. $ 2.5 million.

9. In order to improve the environmental sanitation of the city and to develop the Municipality's service to the public in respect of sanitation the following projects will be undertaken within the period of the Second Five Year Plan: (a) the construetion of public sanitary units, (b) the development of a waste (disposal grounds (sanitary landfill), the construction of an incinerator. In addition to these projects of sanitary improvement plans will be initiated to carry out a sewage system for the city. The total cost of these improvement projects is estimated at Eth. $ 5.5 million.

10. As an approach towards meeting social and economic problems brought about by urbanization the Municipality is launching multi-purpose pilot projects of urban community development in different sections of the city. A comprehensive urban community development programme which takes into account the residents' participation and the co-operation of voluntary welfare organizations and Government Agencies will include activities such as: mother and child welfare centres, leisure time activities for children and adults, mother craft training, vocational training and adult education, literacy programmes, housing improvement and improvement of sanitary conditions as well as the improvement of the local market and community roads. The Municipal portion of investment on these projects is estimated at Eth. $ 1.5 million.

11. In addition to the existing two fire-brigade stations two more stations will be established in appropriate locations so that the brigade will be able to reach any part of the city in case of accident. The construction of these stations will cost Eth. $ 250.000.

12. With a view to assist the development of the capital city, the Second Five Year Plan has provided financial resources to solve the major problems which arise from the fast growth of the population consistent with Addis Ababa's role in national and international life. Provision has been made to improve the city transport and

communications system, to continue town planning, extend the water supply and to improve the town sewage system. All of this is capital consuming investment which cannot be secured by local resources only, so that it had to be anticipated in the National Plan.

13. Additional projects are foreseen for Addis Ababa as part of the economic and social development of the whole country. In the extended Addis Ababa region new industries are to be constructed, especially those intended to supply the growing population with consumer goods. Due to its central position, Addis Ababa is expected to attract a great part of commerce and trade and other economic services. Education, particularly the University, and the various social and cultural activities will expand in Addis Ababa during the Second Plan period. All this points to the need for a planned and co-ordinated development of Addis Ababa as the capital city and in respect of regional development.

14. In order to co-ordinate all the programmes anticipated by the Second Five Year Plan with the local programmes, it is recommended that a Five Year Development Programme for Addis Ababa be worked out. The programme should particularly:

(a) summarize all the programmes and projects foreseen by the Second Five Year Plan in terms of additional economic and social activity, income, employment and population;

(b) estimate the part of the programme that the local resources can carry;

(c) assess the possibilities of improving housing conditions through low-cost housing schemes and self-help;

(d) co-ordinate the various development programmes of local authorities into a consistent whole and work out the priorities, bearing in mind the need to improve the living conditions of the local population.

Other Municipalities.

15. The Municipalities should so plan their programmes that they will effect local economic and social life. It is very important to get the attitude of the local population adjusted to the anticipated progress so as to achieve full effects, both direct and indirect. In addition, local initiative, both of business and of local authorities, is expected to bring changes. With the aim of encouraging economic and social development, the municipalities are recommended to elaborate

development programmes, based on programmes anticipated by the Second Five Year Plan, and on local forecasts.

16. The Government will help Municipalities to work out their programmes by explaining to them the objectives of the Government's Second Five Year Plan. It will also extend technical assistance for working out the techno-economic analyses, financial schemes, etc. Town planning on a moderate scale will be particularly encouraged by the Government, as well as inexpensive low-cost housing projects, the water supply scheme, sewage and others which improve the sanitary, health and living conditions. It should be pointed out that according to the priorities established for the Second Plan period the local development programmes have to be self-supporting. However, local initiative and undertakings may improve the living conditions if propertly co-ordinated and managed. In fact, here is the broadest field for improvements and progress to be achieved by the efforts of the local population.

Chapter 25

POLICY AND MEASURES

1. The general economic and social policy adopted for the Second Five Year Plan, as well as the policy concerning the main sectors, has been discussed in the preceding chapters in terms of development targets, resources and measures. In addition to the setting of the development programmes, it is necessary to adjust the economic and financial system, as well as the socio-economic institutions to the national objectives, so as to establish an adequate framework in which economic and social development can take place. As a matter of fact, the development plan and the institutional framework are an integrated unity, for the plan has to be implemented in an appropriate environment, whereas the environment has to be adjusted to the development targets. Moreover, many national objectives can be achieved only as an indirect effect of various development schemes. All this calls for a clearly declared general policy to be followed during the next five years and to be known to everyone concerned.

2. A national development programme viewed by economic and social circumstances can be implemented only if supported by the whole Nation. Neither the Government's efforts alone, nor the support of some sections of the population only, can lead to the fulfilment of the Plan. The Second Five Year Plan, which envisages important progress, calls for hard work and sacrifices. Its intention is to distribute equally both benefits and burdens among various sections of the population. In a democratic society of the Ethiopian type, the burden and sacrifices should not be imposed by the Government, nor should the fruits of the progress be limited to a small segment of the population. That is why the co-operation of the public is most necessary, and why it is one of the most important factors for a successful implementation of the Plan.

3. The idea to progress implies a conscious contribution of all citizens to various development programmes, according to their physical, intellectual and economic capacity. In fact, the fulfilment of the Second Five Year Plan requires a national awareness of the tasks and obligations and a planning-mindedness. It should also encourage the Nation's attitude in respect of progress and motivations concerning private and public affairs. Having great responsibility for the

implementation of the Plan, the Government will have to share it with other agencies concerned by distributing the tasks and responsibilities, through adequate information of the general public with regards to the objectives, achievement and failures, and by explaining how better to achieve the objectives set forth. Ethiopians are being faced with a great economic and social undertaking, therefore the information and educational functions of the Government will have to play an important role in mobilizing the Nation for the implementation of the Plan.

4. Today, all over the World, the principle that economy of a nation has to be owned and managed by the nationals has been accepted. Due to historical reasons a large part of Ethiopian business is owned or managed nowadays by foreigners. This must be Ethiopianized. Ethiopianization of the economy as conceived by the Second Five Year Plan by no means restricts or limits the rights of foreigners. It is an attempt to extend Ethiopia's wealth and income, to train Ethiopian technical and managerial staff, to establish new Ethiopian enterprises and to promote economic and social activity in all directions. Together with the Ethiopianization of the economy, the economic, social, and cultural relations with other countries and foreign citizens should be extended and strengthened, because the future development of this country provides sufficient room for both national and foreign undertakings.

Land Reform and Settlement

5. The advancement of agriculture and the possibility of having this largest sector of the national economy contribute its fullest share to the country's faster socio-economic development in the future, is conditioned by the magnitude of certain outdated relations in the agricultural sector. The peculiarities of a historical process of settlement and occupation of land in Ethiopia, have been brought about and preserved until the present. Among them the most important are (a) the multiplicity of ownership systems which are neither legalized nor clearly defined, (b) the legally undefined and varied landlord-tenant relationships which, in terms of both the size of population and the land affected, present a problem of the greatest importance. This situation is basically due to lack of legislation dealing with land ownership matters, as well as to a complete lack of cadastral surveys and registration of land

6. It has to be pointed out that an important part of any increase of the agricultural output has to be realized by improving farming methods in the peasant sector of agriculture. As tenancy is the prevailing pattern of land utilization in many parts of Ethiopia, it stands to reason that no measures and policies aimed at the stimulation of peasants to improve their methods of farming and increase productivity could lead to the desired results unless the landlord-tenant relations are regulated in such a manner as to enable a tenant to share substantially in the increase of the product of his own efforts.

7. The lack of clearly defined ownership rights and land registration makes it impossible to use policies and other fiscal measures efficiently both to increase the saving capacity of the economy and to encourage and force the rational utilization of agricultural land. They could also contribute significantly to the solving of settlement problems in Ethiopia.

8. The studies that have been carried out so far indicate that the nature and magnitude of all major land reform problems involved are such that they cannot be solved in a short period of time. Their solution is, however, a prerequisite for starting the process of modernization of agriculture, without which no steady growth of agricultural output can be hoped for. The fact that an accelerated overall economic development is already under way does not mean that the problems of land reform can be left unsettled any longer. On the contrary, it implies that important steps towards their solution must be undertaken during the Second Five Year Plan. In the course of the next five years we must concentrate on the following aspects of land reform: (a) improvement of landlord-tenant relations, (b) progressive taxation, (c) abolition of out-of-date holdings, and (d) cadastral surveys and land registration.

9. *Improvement of Landlord-tenant Relations.* — Improvement and legal enforcement in this respect should include rent control, security of tenancy and legalizing leasing arrangements. Security of tenancy however, is not as acute a problem as rent control and leasing arrangements. But, to have a clearly defined status of tenancy, security with regard to minimum period and conditions of eviction

should be legalized.

10. Existing trends indicate that the rent and sharing arrangements do not encourage improvements of farming methods, nor investments, and this has resulted in the preservation of a very low productivity of those farms. It is necessary, therefore, to undertake pilot studies and careful analyses in different regions, on the basis of which rent should be determined and made legally binding on both landlords and tenants.

11. *Progressive Taxation.* — The limitations of infrastructure, physical and biological environmental difficulties, and political incidences have been causes for disproportionate distribution of population at the initial stage of the country's development. In areas (high altitudes) where the population pressure is rather high, the land has been subdivided into small and uneconomic units. On the contrary, where the population pressure is low (low lands and forests), huge and uneconomic units of land are owned by smaller groups of owners. Failure to check and decrease the continuation of both trends would hamper development, by giving way to maldistribution and misallocation of capital and labour, and under-utilization of potentially productive areas. With this in view, it will be absolutely necessary to impose a policy of progressive taxation. This is intended to persuade owners of lands to be confined only to areas they are economically able to utilize. In such a manner it would be possible to make potentially accessible areas settled and utilized by farmers who will move from densely populated areas, or to have them used by big commercial farms, either public or private. The analysis and setting up of the progressive model of the new tax has to be based upon careful studies of the existing taxes and their implication.

12. *Abolition of Out-of-date Holdings.* — Systems of holdings which are incompatible with economic and social development should be eliminated. Owing to the large variety of existing out-of-date ownership systems, the methods and procedures for abolishing them should be adjusted to the local circumstances. In establishing new relations, economic considerations, social justice and uniformity should be the main criteria. It is believed that the consequence of such action will be to increase Government revenue through including lands which were disguised in the taxation circle, and to give an impetus to economic and social development of these areas.

13. *Cadastral Survey and Land Registration.* — Cadastral survey is a basic condition of carrying out the overall policy of land reform. The taxable capacity of land even under the present system of land taxation could be tripled or quadrupled if uniform cadastral survey is carried out. The survey is planned as a long-term undertaking and it is intended that complete information about any piece of land should be clearly known and officially registered. This survey will also increase the availability of potential and accessible lands.

14. The above mentioned tasks, which constitute a part of a longer-term programme of land reform in Ethiopia, would have to be reconsidered in accordance with a detailed study undertaken by experts on the basis of an agreement between the Ethiopian Government and the United Nations Food and Agriculture Organization.

15. An autonomous Government Agency will be set up to deal with all responsibilities in respect of land reform, i.e., to carry out all the tasks which are set forth in this Plan. The agency should work out the most appropriate methods and procedures and establish a long-term working programme. For the next five years priorities should be given to the most promising agricultural regions.

Financial Policy and Measures

16. With the aim of providing sufficient funds for the implementation of the Second Five Year Plan, the national and State financial system has to be expanded and strengthened. With this in view Government policy and measures will endeavour to increase the saving capacity of the country, to secure necessary financial means for State expenditures, to acquire the foreign resources needed to implement the Plan, to encourage and promote investment in kind and to establish financial and other reserves to maintain a sound economic situation.

17. *National Savings.* — The Government's permanent policy is to increase the national savings in order to secure adequate financial resources to be used for investment. The increase in national saving demands a redistribution and restriction of the current consumption, both individual, general, and Governmental. In fact, if used for development purposes, saving is nothing more than postponed consumption which is being invested for the further growth of production. This is actually the philosophy of economic growth, that present

restraint in consumption will in the future result in larger consumption and better living.

18. The business community is recommended to save more by increasing production and turnover, and various Government measures will be introduced to reduce operational costs and avoid all kinds of unnecessary expenditure. To make the best use of saving, the community should either reinvest it or invest it in new undertakings. In addition to saving, a large part of depreciation should be used for additions and improvement in existing business. The Government will encourage all investment in productive sectors above a stipulated amount by appropriate progressive tax exemption according to the size of the investment. The Government will also start new profitable semi-public undertakings to encourage private savers to invest and to promote the upgrading of entrepreneurship. It will sell the shares of existing public companies to private concerns with the view of mobilizing private savings for productive purposes. The State Bank will extend its services, particularly the Current Accounts, to businessmen, in order to avoid the immobilization of the national saving.

19. A large-scale Small Saving Scheme should be launched by the Government through various financial organizations. Savings accounts with the Bank should be extended as a fair method of saving for old age and other needs. As soon as the post office services can be improved, post office saving will be introduced to serve, in particular, those areas where there are no banks. Insurance companies should expand the life insurance business, as well as other kinds of insurance. The Government will issue Government bonds and encourage the traditional methods of saving, which should be incorporated into the Small Saving Scheme. Small saving should get publicity, both in urban and rural areas; it should be advertised as a means which will assist the national development and provide the people with security. Special attention should be given to the mobilization of small savings to extend the financial basis for additional credit facilities.

20. Both forms of Government saving, increasing revenue over expenditure, and acquiring profits from the public enterprises, will be extended during the Second Plan Period. All the Government Agencies must use in the most efficient way the resources which are

made available for personal emoluments and other expenditures, and public enterprises have to be managed along the most profitable lines. The surplus of Government revenue over expenditure will be primarily invested in new public enterprises, and kept as a reserve for further Government action, as well as to maintain the stability of the national economy.

21. *Tax Policy and Measures.* — Conceived as a part of the Government's economic policy, tax policy should aim (a) at encouraging economic development in conformity with the objectives of the Second Five Year Plan and the long-term development programme, (b) at collecting sufficient financial means needed to carry out the Government's functions in the field of public administration, social services, economic services, and for economic development, (c) at distributing the tax burden among the taxpayers in proportion to their economic capability. The Government's taxation policy should contribute to maintaining the stability of the purchasing power of the national currency, by adequate allocation of direct and indirect taxes. The tax system should be properly co-ordinated with the growth of economic activity and with other financial measures to be undertaken by the Government and its financial agencies.

22. With this in view the Government will steadily improve the tax system in order to meet the growing needs of State revenue. Of course, additional income will be provided from the rising economic activity and by a better system of tax collection. However, the improvement in the tax system will also have favourable effects, both in their economic and social aspects. The deficiencies in the present tax system broadly suggest the following corrections. In order to achieve a more equal distribution of taxes, the rent tax and business tax should be combined, while progression in taxation should be sharper, as it is in other countries. This will also be necessary since the income which is being invested will be tax exempt for several years. The land tax and tithe on land should also be improved, both in respect of determining the basis for levying and of introducing progressive rates. The education and health taxes should be imposed not only on the rural incomes but also the urban, especially since the urban population gets more benefits from the social services than the rural population. The introduction of the death tax should also be

considered with the view to integrating all taxes into a consistent and modern system.

23. It should be pointed out that no direct and fast changes may be expected as far as relations between direct and indirect taxes are concerned. However, indirect taxes will have to be readjusted in the light of growing economic activity especially in industry and foreign trade. First of all, the indirect tax system has to be simplified in order to facilitate collecting and control of tax payments. Excise duty as the main internal indirect tax has to be adjusted to the present level of the customs duty, in order to transfer the unearned incomes of the domestic industries to the State Treasury. On the other hand, customs tariffs must perform a double task, to protect the domestic industry and to facilitate the foreign trade policy in respect of imports of capital and consumers' goods. With the view of creating a sound economic climate and of promoting the exchange of goods and services, indirect taxes should be properly co-ordinated and should form a unified system.

24. Various tariffs and other charges which are being paid to the Government for services which it renders through its agencies and institutions for individuals and corporations, should also be reformed. The charges should, in fact, cover a larger part of the cost of services concerned, and should be a regulator of the extent to which the services are to be developed. They should correspond to the actual benefits which individuals and corporations derive from the functions of the Government Agencies and social service institutions. Although it will not be possible to transfer many institutions which are subsidized by the Government to a new self-supporting basis, the principle of compensation of the costs should gradually be introduced even during the Second Five Year Plan period.

25. The Government financial agencies, both central and local will have to perform great and responsible tasks. Their organization should therefore be gradually improved, while efficiency will have to increase in all respects. The Government will provide the executive personnel with additional training and will undertake all appropriate measures to ensure the implementation of the legal procedures in public financial matters. Tax control will steadily have a greater importance in protecting both the Government's and the taxpayers' rights and interests. With all these improvements in view, both in

respect of the tax system and of the financial organization, it is to be expected that everyone concerned will carry out his duties and obligations, so as to facilitate the implementation of the Second Five Year Plan.

26. *Banking and Credit Policy.* — Banking and credit policy should be one of the most important instruments for the implementation of the development programmes. To meet the growing demand of the national economy the Government will promote all kinds of banking operations, with the aim of supplying the economy with sufficient money, mobilizing the savings and extending credits. The public banks will follow an active saving and credit policy, properly co-ordinated with the Second Five Year Plan targets and financial scheme. The Government will endeavour to maintain internal and external stability of the national currency with a view to creating sound economic conditions and to stimulating investment and production.

27. Credit facilities should be extended both for investment and current transactions. Credit should be granted to private concerns and to public undertakings according to the priorities established for the implementation of the Plan. Because of their importance, the directly productive industries should get priority as far as investment credits are concerned. As to the short-term credits, they will have primarily to be extended to undertakings which promote exports and contribute to production. If necessary, a differential rate of interest will be introduced to stimulate the kind of business which is in conformity with the Second Five year Plan. With a view to completely integrate the banking activity in the framework of the Plan an annual credit programme should be worked out, to be integrated with the annual plan and State Budget.

28. To produce sufficient money to provide credit to the economy, the banks have to extend their operations according to the distribution of tasks and responsibilities to be established by the Government. The activity and operations of the banks will have to be co-ordinated by the Government, particularly through annual credit programmes. In principle, deposits, savings, and current accounts, public funds with the bank and others, have to back the credits to be issued. Therefore, these kinds of operations should be given full attention, because they expand the credit capacity of the banking

system. Insurance companies' activities and the Public Servant Pension Fund will also support the expansion of credits. However, due to the bigger demand for credits, they also have to be extended on account of hoarded money as well as on account of a surplus of currency-backing over current foreign trade requirements. In fact, a more flexible credit policy has to be applied during the next five years in all respects. It should in particular aim at avoiding inflationary pressure which accompanies a fast growth of the economy and investment activity.

29. With the aim of promoting banking and facilitating the implementation of the credit programme for the Second Five Year Plan the Government should reconsider the present bank organization. Besides the State Bank, which should be the central bank and issuing organization, a public commercial bank should be established with a network throughout the country. Local banking and the promotion of current economic activity, as well the mobilization of savings should be the main task of the Commercial Bank. In addition to the Development Bank, which should expand its long-term credit business, a new investment bank should be established to issue medium-term and long-term credits for small and medium-scale undertakings. The Government will also encourage all kinds of insurance business through the insurance companies, and with a view to stabilizing insurance activity it will consider the feasibility of reinsurance in Ethiopia by one of the existing companies.

30. *Foreign Exchange.* — The importance of foreign resources needed for the Second Five Year Plan is emphasized by the nature of the uses for which they are intended. The development of economic sectors as well as of education and public health largely depends on the inflow of foreign exchange, particularly with regard to import of machinery and equipment. Efforts should therefore be made to cover the foreign exchange requirements, since they are an important factor for the fulfilment of the Second Plan. It is well known that Ethiopia is a promising country with rich natural wealth and wide economic possibilities, and her internal and international position is such as to allow for a much more complete economic co-operation with other countries. All this is a realistic foundation for an optimistic outlook in respect to the foreign exchange problem in the frame of the Second Plan.

31. The Government's policy in the next five years will be primarily to rely on the country's economic possibilities. Exports will be promoted to earn more foreign currency, which will be used to import capital goods and goods in process. However, due to the need for foreign exchange being in excess of the regular balance of trade, which will be caused by increasing imports of equipment, additional foreign resources will have to be provided. The Government will, therefore, undertake appropriate measures to extend the inflow of foreign resources, both through economic technical assistance and by attracting foreign investors.

32. With respect to foreign public loans, the Government will endeavour to contract agreements with more foreign countries to provide sufficient foreign funds for the implementation of the programme in general, and especially for the key projects. It is highly desirable to obtain long-term general credits to be allocated according to the priorities of the Second Five Year Plan. In principle, foreign credits will be used for productive projects which will be able to repay the credits out of the returns. Complete financing of development projects, both external and domestic costs, and full economic and technical assistance, to cover all preparatory and construction works, including the training of the Ethiopian personnel, is highly desirable.

33. As regards foreign direct investment, the Government will provide all facilities to encourage prospective foreign investors. Foreign investors will be particularly encouraged to establish new factories, to study and prospect for mineral resources, to open mines, extend large-scale farming etc. Foreign private capital is needed and welcome to Ethiopia, so that the Government will endeavour to make appropriate arrangements to establish mixed companies, Ethiopian and foreign. Existing foreign firms will be encouraged to continue and the Ethiopian firms to reinvest and expand business.

34. Technical Assistance from the United Nations and friendly countries and Grant-in-Aid schemes are expected to play an important role, particularly in the field of social and scientific development. Appreciating the efforts made by other Governments, Ethiopia will contribute to the mutual assistance of nations. The Government will continue to offer educational facilities to African students, to support various international schemes related to the economic and social progress of the developing countries, and to contribute in various ways

to the economic and social co-operation of Nations.

Private and Public Sectors

35. Aiming at improving general economic and social conditions, the Government will promote both private and public sector undertakings. In a mixed economy of Ethiopian type, private and public sectors have to co-operate closely for the progress of the Nation as a whole. Neither the private nor the public sector will have priority, both of them should have equal rights, obligations, and facilities. There will be no limitation to the private sector either in the kind of business or in the size of enterprise. However, the Government will assume the responsibility for the development programmes which are of vital national importance and cannot be accomplished by private concerns.

36. Owing to the lack of entrepreneurship and managerial and technical personnel, the Government will establish public or semi-public economic enterprises. Undertakings of the public sector will have to be accessible to private concerns also. With this in view a Government agency concerened will distribute shares and bonds so as to attract private savers into the economic activity. It is hoped that Ethiopian savers will be sufficiently business and planning-minded to support such Government actions financially and in other respects.

Economic and Social Legislation

37. There is a large field for improvement in the national economy and social life to be achieved through a more adequate and up-to-date legislation. Traditional common law cannot satisfy the new requirements and relationships which are being spread by economic and social progress. So far the legal background of the national life had been established through basic laws and regulations concerning the functions of the Government, and the socio-political relations reveal the need for additional legislation, to lay down the rules of economic and social behaviour and promote the national progress.

38 During the Second Five Year Plan period the legislative bodies will have to pass a series of new laws concerning the status, function, and the rights and obligations of economic units. A planned economy such as the Ethiopian requires a properly defined economic policy and action in economic affairs in general, and particularly in planning. New rules have to be adopted concerning the distribution of economic functions, the facilities to be given to new undertakings, the promotion of trade, industry, agriculture, building and other

activities, and agrarian relations, as well as the regulations which have to assist the implementation of the financial scheme for the Second Plan. Owing to the growing importance of the public and semi-public economy, regulations should be issued to define the place and role of public enterprises in the national economy and to ensure their extension for the benefit of the Nation. Legal provisions, together with the economic and financial measures to be undertaken by the Government, should improve the present institutions and establish an economic system which will encourage and promote the growth of the economy.

39. Social legislation which will have to be introduced during the Second Plan period is also important. Labour legislation is perhaps the most urgent, due to increasing employment and to the need for creating favourable conditions for upgrading skill and efficiency. The protection of handicapped groups of population also calls for the organized action of society, to be properly defined by law. In addition to social legislation, regulations concerning public administration, distribution of responsibility, public servants' rights and duties, etc., would have to be passed.

Development Agencies

40. The implementation of the Second Five Year Plan will of necessity call for the establishing of new development agencies which have to assist the development of the propulsive sectors. Owing to the lack of advisory services concerning economic, technical, and managerial problems, the implementation of various programmes might be hampered. With a view to facilitating the fulfilment of the Plan, both in its techno-economic and financial components, the Government will set up new development agencies to act on behalf of the Government in various fields of economic development.

41. Besides the Development Bank and the new Investment Bank, which will have to deal with long-term credits, the Government will establish a development Fund as an instrument for financing new public undertakings, both in economic sectors and in social services. The income of the Fund at the beginning will be supplied by the State Budget out of the provisions made for investment purposes. Gradually and along with the budgetary reform, the income of the Fund will be provided by the earnings as well as the capital repayments of the public enterprises. The utilization of financial means of

the Development Fund will be decided upon by the annual plans in conformity with the investment targets set out for the current year.

42. A Technical Agency will be set up by the Government to deal with the technical and economic problems of the new projects. The Agency will extend all kinds of services needed for the construction of new projects, such as feasibility studies, techno-economic analyses, designing, execution of works, supervision, etc., primarily to the public sector but also to the private sector. As an autonomous public self-supporting body the Agency should contribute to stability on the investment services market, and thereby assist economic expansion. In addition, an Industrial Promotion Service will be initiated within the Ministry of Commerce and Industry to help domestic and potential foreign investors as regards information, economic conditions, and other relevant matters.

43. The Government will also establish an Agricultural Development Agency to carry out the tasks related to the development of large-scale public and co-operative agricultural undertakings. This Agency should be responsible for all aspects of the extension of modern farming and animal husbandry, such as designing, agricultural research, organization, job training, marketing etc. It will be an autonomous public body to be financed out of Government investment funds and credits, and should gradually become self-supporting. The Agency will co-operate very closely with the Community Development programmes in various fields of activity.

44. During the Second Five Year Plan period the responsibility for feeder road construction, public health, local programmes, primary education, etc., will be transferred from the Government to the provincial authorities. In addition the Government agencies at provincial level will be strengthened to better administrate the various economic and social programmes. With a view to co-ordinating the programmes within the regions and to stimulating local initiative for progress, it is reconmmended that Regional Economic Councils be established as advisory bodies for regional development. The councils should work out regional programmes which should be co-ordinated with the community development schemes and assist the Central Government in establishing priorities for the development of the regions concerned. They should also speed up the progress of the regions by local contribution of finance, material, and labour. After

due consideration the regional development programmes should be incorporated into annual plans provided additional resources can be ensured.

Chapter 26

ADMINISTRATION AND ORGANIZATION

1. Owing to the pace and complexity of the anticipated development, the implementation of the Second Five Year Plan will call for very efficient administration and for adequate organization. To accelerate development, the Government will have to assume increasing responsibility for conomic and social affairs. This is the modern trend. This stresses an efficient public administration for the planning and development sectors. In addition, many institutions which already exist should be strenghtened and new ones should be established in order to adjust the present structure of public administration and national economy to the trends anticipated by the Plan.

2. *Responsibility of Government Departments.* — The distribution of tasks and the responsibility of the Ministries will be adjusted in order to avoid duplication of responsibilities and to define precisely the range of each Ministry. In principle, major economic and social activities will be covered by a single Ministry, and the division of responsibility for a single activity will be avoided. As regards minor economic and social activities, they will be combined according to similarity of the scope and development targets. However, division of work should not prevent co-operation among various Ministries when dealing with common matters. Co-ordination in procedure and action aimed at increasing the efficiency of the whole public administration should be the guiding principle in carrying out the current tasks, keeping in view the total perspective.

3. Due attention will have to be paid to the allocation of the development tasks which are to be carried out by the Ministries. With a view to achieving the targets, both in respect of their content and of time, the Ministries will work out detailed annual plans and quarterly and monthly programmes with all the specifications concerning the tasks, action to be taken, and the responsibilities. The annual plans of the Ministries will have to be co-ordinated and integrated into the National annual plan which is to be approved by the Government, while the quarterly and monthly programmes will be co-ordinated in respect of resources and financing. When approved, the scheduled annual plan will be the guide to all the Ministries, and a

means for a preliminary co-ordination of the programmes to be underunder taken by the Ministries. The monthly and quarterly programmes, as well as the annual plans, have to be followed up in order to control the degree of implementation of the programmes and plans, and to undertake further measures satisfactorily to fulfil the Second Five Year Plan targets.

4. All the development Ministries and Government Agencies will set up planning and statistical units and will elaborate the annual plans and the quarterly and monthly programmes. The planning and statistical units will also be responsible for the follow-up of the development programmes and will submit evaluation reports for each planned period. The evaluation reports should be in both quantitative and qualitative terms; they should also contain the measures to be recommended for the implementation of the targets. All the departments of the Ministries will have to co-operate fully with the planning units in all the stages of preparation, implementation, and control of the plans. By the end of the current year all the Ministries, those concerned with development, as well as the administrative, will have to submit to the Government annual reports and evaluations of the achievements and failures for the year.

5. Planning, as well as the implementation of the Plan, should not be of a purely administrative nature. The development Ministries should have continuous day-to-day contacts with the economic units, the social service institutions, development agencies, private concerns, etc., to assist the implementation of various programmes and schemes, and to assess their intention and evaluate the progress. On-the-spot control, encouragement and help will be most appropriate methods of action, but without any bureaucratic interference with the responsibility and affairs of others. The Ministries and Government Agencies concerned will have to co-operate especially with the economic and social service units, because only their efficient work and progress can ensure the execution of the national targets.

6. *Co-ordination of the Plans.* Just as the Five Year Plan, the annual plans and quarterly and monthly programmes have to be coordinated and integrated by the planning Office which acts on behalf of the Government in all the technical aspects of planning. The Planning Office will prepare the respective plans and programmes for the

Government's deliberation; it will follow up the Plan, prepare and submit to the Government the evaluation reports, and recommend the measures to be taken by the Government in order to implement the plans in time. In all stages of planning the Planning Office will have to consider the views and suggestions given by the Ministries and Government Agencies.

7. The Standing Preparatory Committees have extended valuable services in the course of elaboration of the Second Five Year Plan and have proved the necessity for a close co-ordination between the various Ministries. With the aim of increasing the efficiency of the planning organs and strenghthening co-ordination, there should be permanent professional co-operation between the Planning Office and the development Ministries and Agencies. The Planning Office will have to ensure the best methods and channels for co-ordination by standard planning forms, uniform methodology etc. The technical committees, consisting of the heads of planning departments, will have to be convened by the Planning Office to consider the common technical issues related to planning. There must be continuous co-operation among all the planning organs in order properly to carry out the preparation of the plans and programmes, their follow-up, and all the preparatory work in respect to policy, decision, and measures.

8. The Government will consider in detail all the plans and programmes submitted by the Planning Office. It will also review the progress and the evaluation reports and take all measures needed for a successful and continuous implementation of the Second Five Year Plan. Whereas the Ministries and the Planning Office will be responsible for all the technical aspects of planning, the Ministers and the Government will bear the political responsibility concerning all decisions in respect of planning. The Government will also inform the public concerning the progress and the problems which arise in the course of the implementation of the Plan.

9. *Annual Plan and Budget.* — It is of paramount importance to have the annual plan co-ordinated with the State Budget, as well as with the annual credit plan. Various projects whose construction has to be financed by the Development Fund, or by bank credits should be clearly stated in the three documents concerned, and they

have to be backed by all technical details needed for their implementation. When approved by the Government and through other procedures, the Annual plan, the Budget, and the Credit plan have to be implemented without delay by the agencies concerned. The documents concerning the Annual plan, and particularly the Budget, have also to foresee the recurrent expenditures for social services, economic services, and public administration according to the tasks set forth the current year. Simultaneously with the Annual plan, the Budget and the Credit plan, the evaluation report concerning the progress achieved in the past year will have to be submitted. The Annual plan has to make provisions for the work started during the past year to be carried over to the new, and that both the economic and social activities will be continuously carried on.

10. *General Administration* will also have to be improved with a view to providing the public with better services, and to creating favourable conditions for economic and social development. Various administrative matters have to be solved without delay and according to the existing laws, in order to meet in time the needs of the business population and various institutions. The efficiency of public administration should be improved and it must rely on better knowledge and higher responsibility of the public servants. It should be stressed that public administration and public servants must provide efficient service to help maintain the legal order of the State and to facilitate the economic and social life of the country. To this end the already appointed Administrative Reform Committee will have to intensify its activity. This is particularly important with regard to the timely preparation and introduction of all necessary regulations in this field.

11. *Public Enterprises.* — The promote economic development and with a view to meeting the Second Five Year Plan targets the Government will establish new public enterprises. Many existing public concerns such as the Ethiopian Electric Light and Power Authority, the Imperial Board of Telecommunications, the Imperial Highway Authority, the Cement and Textile concerns, etc., are evidence of successful public economy. The development anticipated by the Second Plan will call for the setting up of new public or semi-public enterprises in various fields of the economy.

12. When establishing new enterprises the Government will

define precisely their field of activity, production, or business, allot the initial capital, and if necessary make provision for credits. It will also appoint the management, which will have to be responsible for such matters as production, marketing, profits etc., concerning the enterprises. The public and semi-public enterprises shall be autonomous organizations to be run on a profit-making basis.

The line of business and production, as well as other tasks of the enterprises, will be worked out in conformity with the prospective and immediate targets arising from the five-year and annual plans. This will be, in fact, the guide to the management, to be followed and implemented bearing in mind the principle of economy. The management will be responsible for implementing the physical and financial obligations to the Ministry concerned, or to the shareholders in the case of semi-public enterprises. Physical auditing as well as supervision and control should be performed by the Ministry on the basis of progress reports to be submitted by the management, and of on-the-spot inspection. However, no interference with the affairs of the enterprises should be allowed, because the management should be responsible for the success of the business both morally and financially.

13. In the course of the Second Five Year Plan, and after sufficient experience has been gathered on the running of public and semipublic enteprises the Government will pass a Public Enterprise Act to define the tasks, rights, and responsibililities of the public enterprises within the national economy and the development objectives to be achieved by setting up new public and semipublic firms.

14. *Social and Economic Services.* — To increase the efficiency of the social and economic service institutions, the Government will tend to give them autonomy in running their affairs to the utmost possible extent. Proper distribution of the targets, as well as adequate allocation of financial resources, will define the activities of the schools, hospitals, Agricultural Extension Service, Veterinary Service, Road Maintenance, and other public institutions. Within the tasks and responsibilities allotted, the management of the institutions will have to organize and perform their activity with a view to achieving the best results. Each Ministry concerned will co-ordinate the activity of all the institutions under its responsibility, extend all kinds of

assistance, and supervise the work.

15. Many services provided by the public institutions are at present free of charge; if any fee for services is paid by the beneficiaries it is far below actual costs. Exception is made for some services, such as education, prevention of communicable diseases, agricultural extension service, etc. It is socially and economically justified that the beneficiaries should pay for the services recieved. With the aim of gradually introducing fees and charges for the services, studies have to be carried out as to which services could be charged for, how the charges will effect the standard of living of various sections of the population, and what benefits can be derived by transferring some services to self-supporting institutions.

16. *Auditing*. — In a growing economy such as that of Ethiopia, financial auditing is gaining increasing importance both in managing the economy, and from the point of view of State finances. Efforts will therefore be made to improve and extend the auditing services to all firms and institutions, and to obtain the auditing findings and reports on time. Owing to the importance of auditing, it has to be run on an objective, impartial, and purely professional basis. This is why the professional integrity of the auditing personnel should be the main criterion in extending auditing services to new enterprises. The efficiency of the auditors should be increased by permanent in-service training and by upgrading their professional ability and social prestige. To facilitate auditing, as well as to improve the conditions for planning and follow-up within the corporations and public enterprises, the introduction of a uniform bookkeeping system will be considered, in order to introduce it gradually in the course of the Second Five Year Plan period.

17. Special attention should be given to the auditing of public and semipublic enterprises. If public funds have to be allotted for various economic projects, and if the management has to be made responsible for running the public enterprise to the best of its knowledge and consciousness, the Nation must have a control over the

utilization of its funds and should be assured that they are properly used. Thus, auditing is closely related to the public enterprise concept, and should be a very efficient tool in maintaining the integrity of the management and in controling it. In addition, auditing should also help the Government's endeavours to administrate the public affairs on the most economic lines. Finally, proper auditing should also make sure that the private concerns fully respond to their financial obligations towards the State and the Nation.

Chapter 27

SCIENCE AND RESEARCH

1. The future economic and social development of Ethiopia will greatly depend upon how up-to-date scientific and technical achievements are introducted and applied for speeding up progress. Owing to the fact that scientific knowledge and considerations have to be implemented in all economic and social activities, the Government will promote and encourage research work in all the public and private institutions so that it may contribute to the extension of modern knowledge, techniques and practices. It is by no means an exaggeration to say that not only the immediate but also the prospective development of Ethiopia will depend basically on the feasibility and efficiency of introduction and adaption of the world's scientific resources. This is to occur during the Second Five Year Plan which considers the economic, social, and cultural progress to be closely interrelated with the progress of research and science making it an integrated and balanced process. Whereas scientific methods have to be introduced to help the implementation of the Second Plan and future plans, actual practice has to be surveyed and studied in order to learn what benefits have been derived, and how the future development will have to be guided in the light of Ethiopian experience.

2. It is a feature of the contemporary development phase of Ethiopia that the need to introduce and develop research and science is hampered by a great shortage of research and scientific personnel. In the course of the First Five Year Plan period many new institutions were established and were entrusted with carrying out research, prospecting and other applied scientific work. New personnel was trained both in the country and abroad to meet the growing demand in this respect, and technical assistance facilities were provided by many friendly countries. However, the fields to be investigated and studied are expanding at such a pace that neither the domestic institutions and personnel, nor foreign technical assistance can cover all of them without energetic action from the research workers and the Government. In such circumstances research and scientific work has to be started in various educational institutions, research stations, Government agencies, industries, etc., and co-ordinated in order to get

the maximum results from the meagre research network.

3. Although the education of technical and managerial personnel is expected to be a rather minor factor of economic and social development during the Second Five Year Plan, efforts should be made to select and train the best university graduates for research and scientific work in general. Aiming at encouraging and assisting the training and formation of domestic research workers, the Government will provide educational facilities for promising university graduates in Ethiopian institutions and abroad. It is to be expected that young Ethiopians will be more and more interested in science and applied research in order to contribute to the growth of this aspect of national development.

4. In promoting scientific development, the Government policy will be to pay due attention first to the research fields which will have to assist the immidiate implementation of the national development programme, and secondly to encourage basic scientific work which is of a long-range nature. It is to be expected that national development as a whole, economic, educational, social, and cultural, will gradually improve the conditions for extended scientific work, so that better opportunities will be offered in this respect. Research and scientific work which will highlight and clarify past national development and Ethiopian cultural and artistic values will have to be promoted. Though such a broad scope of scientific development is by no means an easy task it may be gradually achieved by the efforts of all the institutions, individuals and other factors concerned.

Development of Statistics

5. In spite of its improvement in the course of the First Five Year Plan period, the present statistical system is by no means adequate to meet the growing demands for statistical data, both by the Government and the general public. In a planned economy reliable statistics have to supply sufficient information to elaborate plans, for their follow-up and for any kind of policy decisions. Further, the expanding economic activity calls for more complete statistical information because the business community as well as various Government Agencies have to rely upon accurate data when carrying out their affairs. Finally, basic statistical data are more and more needed by research institutions for education, general information, etc. This also points to the need to improve the statistical system.

6. In order to improve the present statistical system the Government will review the existing system of statistical information and supplement it to cover the most important fields of statistical activity in a modern country. The revised system of statistical information should consist at least of:

(a) basic statistical data concerning population, agriculture, mining, manufacturing, handicrafts, trade, commerce etc.;

(b) current statistical data on the main economic and social activities, such as mining and manufacturing, foreign trade, investment, financial statistics, education, public health, activity of the various social institutions, etc.;

(c) current statistical data concerning price fluctuation, price indices, standard of living, etc.

The revised system should be such as to make allowance for the elaboration of other statistics needed for planning and follow-up and for applied research. It should aim particularly at providing information for national income and investment statistics, population and vital statistics, balance of trade and balance of payment statistics etc. The methods and techniques to be used for data collecting and processing should be adjusted to existing Ethiopian conditions, to obtain the most reliable and informative statistics.

7. To promote statistical work both on the spot and in the Central Statistical Office and Government Agencies, the Government will pass the Statistical Act stating the rights and obligations of everybody concerned with regard to collecting and utilizing statistical data. The Central Statistical Office will be transferred and put under the responsibility of the Planning Board, while planning and statistical departments will be established in Ministries and Government Agencies. Equipment and other facilities will be provided to ensure up-to-date processing and publishing of statistical data. Statistical work must be properly co-ordinated with planning, since both are part of the Government's guidance toward social and economic development.

8. Due consideration should be given to the recruiting and training of statistical staff. Field personnel have to be appointed to various regions and trained for every kind of field work, and must be supervised by adequately trained statistical supervisors. The statistical staff

in the central statistical agencies as well as in Government departments has to be given in-service training, while senior statisticians will have to be trained abroad to carry through the most complex statistical tasks. Gradually, and according to the availability of Ethiopian senior statisticians, in-service training in the Central statistical agency, as well as the teaching of statistics at the University and secondary schools, has to be expanded. For the implementation of the programme already stated, the Second Five Year Plan has made a provision of Eth. $ 4.9 million for recurrent expenditures, and Eth. $ 29 million investment for equipment. It should be pointed out that the financial resources which are anticipated for the development of statistics have to be expanded, bearing in mind economy in statistical work. All statistical surveys must be designed in such a way as to save to the utmost extent on personnel, financial resources, and equipment.

Applied Economic Research

9. In addition to the surveys of current economic and social activity, evaluation reports and other forms of current economic analyses and applied economic research have to be developed during the Second Five Year Plan period. So far, economic research and basic studies are lacking in Ethiopia, particulary those which are to be available to the general public. The first study of the Ethiopian economy made in 1955 (G.C.), as well as the research work done within the framework of the elaboration of the Second Five Year Plan, are no doubt a fair beginning of economic research, since they cover nearly all the fields of the national economy. However, owing to the inadequate statistical material which was used, they have to be reviewed and brought up to date.

10. Many subjects have to be studied in the coming five-year period but some of them should have top priority. A study of national products and their composition should have high priority. Other studies should be devoted to agricultural structure, the long-term trends of Ethiopian foreign trade, regional economic development with particular reference to the availability of resources, propulsive industries, investment structure and demographic affairs. Obviously, applied economic research has to be carried out on the basis of available statistical information, and the statistical programme has therefore to be worked out in full conformity with the economic research

programme.

11. In addition to basic economic research which is of a long-term character, surveys and investigation of various economic and social prolems have to be undertaken. The best method recommended for such inquiries is to study the various statistical surveys to be carried out by the central statistical agency. In this respect, the study of price trends, the standard of living studies, enrolment and turnout of various educational institutions, manufacturing industry analyses etc. are particularly important. It is to be expected that basic economic research and other studies will provide sufficient material gradually to build up the theory of Ethiopian economic development, which is particularly needed for a long-term economic and social development programme. An Ethiopian economic development theory is especially necessary since it must be related to Ethiopia's natural wealth, density of population, and other factors which are an incentive to progress.

12 Being the central agency which deals with various problems concerning the economic and social development of the country, the Office of the Planning Board will be entrusted by the Government to carry out basic and other applied economic and social research. With this in view the Government will strengthen the Office, appoint the necessary research staff, and provide the Office with the necessary facilities. Owing to the lack of experienced research personnel, the Office should organize adequate in-service training in economic research and theory for its own staff and the staff-members of other institutions. It should also publish the main findings of various studies, in order to make them available to the interested institutions and individuals.

Other Applied Research

13. For well known historical reasons Ethiopian territory and natural resources are far from being completely surveyed and propected. This is one of the serious obstacles to a better utilization of natural wealth and the formulation of a suitable policy. During the First Five Year Plan period much had been added to the existing knowledge, but the vast and abundant resources of the country are not yet fully known. The Second Five Year Plan, therefore, anticipates very intensive research and prospecting work to be performed

for nearly all varieties of natural resources. Research, surveys, and prospecting are considered by the Second Five Year Plan to be among the most important factors not only for the Second Five Year Plan development programme, but also in respect of the long-term development objectives and targets. Many of the research and prospecting targets have already been stated in the previous chapters, so that only a summary will be given here in order to emphasize the volume of the tasks, and point out the need for co-ordinated action of the various agencies responsible for research and prospecting works.

14. *Technical Research.* — The establishment of technical and technological research is one of the most important tasks of scientific work to be done in the field of industrial development of the country. The contemporary technical evaluation assumes intensive investigation of a technological nature in all the spheres of production. Actually this evaluation is identical with the progress made in technical and technological research devoted to the most rational and economical utilization of the relevant resources. It is true that Ethiopia, like all the developing countries, has the advantage of being able to apply the results of modern science when starting new undertakings. But in spite of this possibility it is necessary to accompany the industrial development with appropriate research, which has to explore at least those peculiarities of technological processes under different circumstances, which are always present.

15. *Agricultural Research.* Agricultural Research in the course of the Second Plan period should experiment with various varieties, methods, and techniques in the field of cultivation, cattle raising, and the introduction of improved tools and implements. The best varieties, breeds, and types which will be selected will have to be popularized and made available to the farmers in order to increase plant production and animal husbandry.

16. In the field of plant production, scientific institutions will lay stress on those crops which are of the highest significance in the diet of the population, in supplying domestic industry, and in increasing exports and reducing imports. They are, in the first place, cereals, oil seeds, pulses, coffee, cotton, coarse fibre crops, fruits and vegetables. Experiments and investigation in this field should be so directed as to determine:

(a) the possibility of expanding the cultivation of these crops in the regions where some of them have not yet been grown;

(b) the most effective technical methods for cultivation by applying the existing, as well as more up-to-date means of production;

(c) effective plant protection from current diseases and pests;

(d) the most economic technical methods of crop irrigation;

(e) the most favourable varieties of crops in respect to yield, quality of the products, resistance to diseases, etc.;

(f) which types of modern tools and implements should be introduced in the different regions of the country, in respect of the quality and durability of material, facility and effect in use, repairs etc.

17. For the purpose of promoting animal husbandry the scientific institutions should give priority to:

(a) detailed studies to determine the existing potential of domestic cattle in respect of productivity and the quality of meat and milk by applying a ranch-system in feeding (in actual practice this can be applied on a fairly broad basis);

(b) further improvement of the existing potential by organized selection, or by crossing domestic cattle with corresponding imported breeds;

(c) determining the most suitable feeding method and livestock management, and in relation with this, corresponding methods of preparing and preserving livestock feed for the dry period in all the important regions of livestock raising;

(a) the creation of a domestic breed of sheep for wool production, by crossing with corresponding merino types, and at the same time improving the weight and quality of meat;

(e) studying the most effective measures of livestock protection from contagious diseases, parasites. etc.

18. *Geology and Mining.* — The existing knowledge of the mineral wealth and energy potential of Ethiopia is insufficient for a more intensive development and a rational long-term location of industry. This fact is an important limiting factor to the industries which depend on mineral raw materials, so that the important task of research work in this field is to remove this limitation. For this reason prospecting for mineral resources should be given a high priority and

it should be set on a broader basis. It should cover a much larger number of raw materials than has been the case so far, and explore much more territory. This will put more emphasis on the execution of the basic task of prospecting, which is to obtain as soon as possible, a picture of the total mineral wealth of the country, as well as of its structure, volume, quality, and location.

19, Whereas a complete exploration of mineral resources demands considerable funds, skilled personnel, and a longer period of time. (and all this cannot be provided in the course of the Second Five Year Plan), immediate tasks of surveying and prospecting should assist and facilitate the trend of industrial development during the Second Five Year Plan period. It should deal particularly with:

(a) raw materials for energy supply (coal, crude oil, gas, nuclear raw materials and others);

(b) raw materials for the basic industry (iron ore, manganese, chromium, nickel, molybdenum, copper, cobalt, galena and other raw materials);

(c) raw materials for the industry of building materials (cement raw material, quartzite, limestone, asbestos, gypsum, clay, ornamental stone, and other materials for a rapid and easy production of building materials);

(d) raw materials for the chemical industry (salts, coal, oil, sulphur, potash, quartzites and other raw material).

Prospecting for gold, platinum and potash should continue, but should not be exclusive because, regardless of their effect on the balance of payments, they cannot serve as a basis for a broad long-term industrial development.

20. Of particular significance is the prospecting of iron ore deposits in order to determine where the prospective regions for the steel industry may be found. The possibilities and conditions of exploitation should be ascertained, as well as the available supply of sources of energy. It is also necessary to endeavour to complete the exploration for crude oil, and to get information whether coal deposits with possibilities of economic exploitation exist, and if so, where.

21. Aerial prospecting as a method of exploration should be applied wherever possible and effective, to create a sound basis for geological exploration in the selected regions. A fixed programme for

the aerial prospecting of individual regions should be worked out. The findings and results of the completed prospecting operations should be summarized and made available to all those who are interested in mining (domestic, foreign, public and private entrepreneurs) in order to join exploration with exploitation as directly as possible. This has to be supported by an adequate solution of all relevant legislative and administrative issues.

22. *Water Resources.*— Research and surveys of water resources should have a much more multipurpose approach during the Second Five Year Plan period. Although the abundant water resources have to be very carefully utilized to ensure sufficient water for electric power generation and irrigation, as well as for water supply to the population and future industries, it is of paramount importance to co-ordinate in time all the various uses of water in order to achieve the best utilization of other resources, such as land, mineral wealth, industrial potential, etc. Having this in mind all the agencies concerned have to co-ordinate their programmes of water utilization properly, and to rank the priorities according to the prospective development of various regions. In addition, water power as a source of energy has to be supplemented by other sources, for which research and surveys must to be carried out in the course of the Second Five Year Plan.

23. *Multipurpose Surveys of the River Valleys.* During the past years great progress has been made in surveying the promising valleys of the great Ethiopian rivers such as the Awash, Blue Nile, Wabi Shebelli, and others. In the course of the Second Plan new development projects will have to be undertaken in the regions concerned, as the result of research carried out so far. The Second Plan has made provisions to continue the surveys, but it should be pointed out that the survey authorities have to co-ordinate their work with the work of other agencies involved in the development programmes in the valley regions. From the point of view of acceleration the exploitation of natural resources in the valleys it is very important to start other research schemes on time, particularly agricultural research, weather and rain measurements, surveys for road construction, etc. It is highly desirable to carry out all the research and survey projects on time, in order to reduce the period between the beginning of research and the starting of exploitation.

24. *Meteorology.*— Due to the small number of stations meteorological data are avialable only for some regions of the country. In addition, not much data have been published, so that various projects which depend on climatic and weather conditions have to be postponed until the necessary information has been collected. At present there are many places where meteorological observation might be introduced through various institutions and individuals. The Government will therefore take steps to extend the network of meteorological observations. It will provide the agency concerned with facilities to collect and publish the data, so as to ensure basic uniform information in respect to the climatic and weather conditions.

25. *Mapping*, which is at present carried out by several institutions and on only a partial basis, should be centralized and properly co-ordinated. Since it is a precondition of many other activities (regional and physical planning, transport planning, geological and mining research, national defence, etc.), it has to be standardized and based on a comprehensive programme. This programme should contain the general solution of mapping problems, viewed from the national standpoint, and has to ensure the beginning of a general mapping of the country as soon as possible.

Scientific Development

26. The University, as well as other competent institutions, is expected to pay due attention to the development of the basic sciences. During the Second Five Year Plan period perhaps the educational aspects of training Ethiopian personnel who will assume responsibility for further development and teaching in the sciences concerned will have to be emphasized. Because of their importance in the theoretical and applied fields, mathematics, physics, chemistry biology, and other sciences should get a higher priority at the University than they have had so far. Whenever possible, joint schemes have to be established by co-operation of the Ethiopian and foreign scientists, either on a bilateral basis or within the United Nations Technical Assistance Programme. Individual efforts, as well as efforts of various institutions to develop basic sciences should be encouraged by the Government.

27. Ethiopia is a country with one of the oldest cultures in Africa and a national continuity of several thousands of years. However, this

cultural and historical wealth is insufficiently explored, and it is a duty Ethiopia owes to herself and to the world to advance basic research and information in this field. National history, national geography, linguistic studies, archaeology, sociology, as well as other subjects belonging to the human sciences and dealing with Ethiopia's past and present should therefore take their proper place in the overall scientific development. The findings and results which come out of the research and studies, as soon as they have been scrutinized and ascertained to be scientific and objective, should be made available to the national and international public. The programmes of the University and secondary and primary schools will have to include the respective findings, in order to assist the extension of the cultural values of Ethiopia to the new generation. The leading principle in developing scientific work should be that not only should Ethiopians derive benefits from cultural and scientific heritage from other countries, but they should also contribute to the world's cultural and scientific wealth.

28. The traditional way of orally transmitting knowledge and cultural values from one generation to the other can no longer meet the increasing need for science and culture. Therefore, literature on the national arts, scientific and technical knowledge, has to be published in order to preserve the traditions and develop modern science. However, it is not an easy task to implement this during the Second Five Year period only. The building up of national literature in all spheres requires much devoted work through many years and decades. Meanwhile, the Second Five Year Plan as a national challenge should also encourage the scientists, research workers, etc., to contribute their share to national progress. The Government will continue to assist the publication of national literature as it has been doing in the past, but other factors are also invited to help in this national endeavour.

Co-ordination of Scientific Work

29. The programme of scientific development set out by the Second Five Year Plan, either directly or indirectly, is an important part of overall national development. It is faced with limited human and financial resources which might tend to upset its fulfilment. In such circumstances co-ordination of all efforts intended to expand science and research, and close co-operation among all the institutions

and individuals concerned are factors to favour the anticipated development. It should be pointed out that the limitations of human and financial resources will be, to a large extent, overcome by a rational distribution of tasks, by a proper utilization of the results and findings of others, and by a mutual assistance in performing scientific development targets.

30. The Government can only take partial responsibility for prospecting, surveys, research, and science in general by assigning the respective tasks to its agencies. The greatest part of the responsibility is assigned to the University, colleges, and various educational, scientific and cultural institutions which are expected to co-ordinate their activity along the lines discussed in this chapter. To promote co-operation among the competent institutions, public, autonomous, and private, and to facilitate the co-ordination of scientific programmes, the Government will sponsor the establishment of a National Council for Scientific Co-ordination. The Council should be an independent body to bring together the representatives of all research and scientific institutions as well as individual scientists and research workers, with the purpose of encouraging and co-ordinating scientific and research work.

31. Many improvements are expected from the implementation of the Second Five Year Plan in the economic, social, and cultural fields in general. The scientific progress which is anticipated by the Plan, not only as a consequence of social and economic growth, but also as a cornerstone of future development, should be an important asset in the next five-year plan.

THE PLANNING ORGANIZATIONS OF ETHIOPIA

I. Planning Board

The Planning Board * is presided by His Imperial Majesty Haile Selassie I. The members of the Board are: His Highness Crown Prince Merid Azmatch Assfaw Wossen, the members of the Crown Council, the Prime Minister and the Ministers of the Crown. This Board is a policy making body, and meets from time to time to review the overall economic and social situation, and to decide upon major development policies.

II. Planning Board Executive Organ *

The Planning Board Executive Organ is chaired by H.E. Tsehafi Taezaz Aklilou Habte Wold, Prime Minister and Minister of the Pen. The members of the Executive Organ are: The Ministers of Finance, Agriculture, Commerce and Industry, Public Works and Communications, P.T.T., Community Development, Public Health, Education, Information, Mines and State Domains, and Governor of the State Bank of Ethiopia.

The Planning Board — Executive Organ is the Executive Body of the Board. It initiates economic and social development policies and measures and gives instructions to Ministries, the Planning Office, technical agencies and other Government and private agencies for the elaboration of economic and development surveys, annual plans and medium and long-term plans. It is responsible for the follow-up of the implementation of the development plans and for the co-ordination of the economic and social development of the Nation.

III. The Planning Board Technical Co-ordination Committee

This Committee is chaired by the executive head of the Office of the Planning Board. The members of this Committee are executive heads of Planning Units, ** established in the Ministries and/or agencies dealing with economic and social development. The Commitee reviews the various proposals and recommendations of the Office of the Planning Board and submits its recommendations to the Planning Board Executive Organ.

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* The Planning Board, Executive Organ and Planning Board Office have been set up by Imperial Order before starting the first Five-Year Plan.

** See V. of this Appendix.

IV. The Office of the Planning Board

The Office of the Planning Board is the Secretariat of the Planning Board and its Executive Organ. It has a technical staff to serve the planning organs as a whole. This Office co-operates with the Central Statistical Office, the Technical Agency, the Planning Units of various Ministries, Haile Selassie 1st University, the Investment Office, the Chamber of Commerce of Ethiopia, and other Planning Organs in carrying out the preparation of the development plan(s), evaluation reports about the implementation of the plan (s), applied economic and social research, publication and running training courses. It is empowered to have access to economic and social statistical data and reports, and all other relevant facts related to its work. from the Ministries, the Government and private agencies.

The Head of the Office of the Planning Board is the Executive Secretary of the Board. He is assisted by a deputy head and by a Secretary General, heads of sections and other staff members. He is empowered to administer the Office and to deal directly with the Ministeries, agencies and private sectors of economy, as well as international organizations concerning the preparation, co-ordination and implementation of the development plan (s), and research work and training courses.

V. Planning Units in the Executive Ministries and/or Agencies

Planning Units are established in the executive Ministries and/or agencies headed by senior officials of the Government. The functions of the Planning Units are to plan the activities of their Ministries and agencies, research and statistics, to prepare and follow-up the implementation of the development plans and departmental co-ordination. These Planning Units have direct contacts with the Office of the Planning Board. The head of each Planning Unit is responsible to his Minister, and is liaison with the Office of the Planning Board and with the Planning Units of other Ministries and agencies in the course of preparing the development plan (s), co-ordination, and in the course of implementation of said plan (s) and research work and training courses. The head of each Planning Unit is empowered to deal directly with the Planning Board Departments, with a view to co-ordinate and inspect the work of the departments and agencies of his Ministry and/or Agency. He is a member of the Planning Board Technical Co-ordinating Committee.

VI. Standing Committees

In addition to the Planning Organs mentioned above, there are the following six Standing Committees responsible for inter-mininsterial co-ordination and decisions follow-up :

1. Planning and Investment Committee
2. Finance and Credit Committee
3. Trade Committee
4. Social Development Committee
5. Land Reform and Settlement Committee
6. Legislation Committee

Ministries and Agencies in the development sector and the Office of the Planning Board are members of these Committees. Each Committee is chaired by the representative of a Ministry or Agency which is directly concerned with the work of the Committee.

VII. Technical Agency and Development Fund

Technical Agency and Development Fund are set up under the Planning Board as an additional mechanism, for the furtherance of development plan (s). The Office of the Planning Board. the Central Statistical Office, the Technical Agency and the other organs of the Planning Board work under the direct supervision of the Planning Board Executive Organ.

VIII. Executive Ministries

Executive Ministries, Agencies, the Chamber of Commerce of Ethiopia and other business bodies participate and co-operate in the preparation of development plans, and are responsible for implementing the approved tasks, measures and policies as stated in the development plan (s).

CORRIGENDA

Page	*Par.*	*Line*	*Error :*	*Correct to :*
17		22	the social development	the living condition of the people and the social development of the country in general.
44	15	13	peroid	period
103	15	15	expendend	expended
148	5(n)	2	Exetension	Extension
160	7	Table	Coal —	Coal 300
181	2	8	eesential	essential
186	12	Table (Index)	(19542 = 100)	(1954 = 100)
186	12	Table (Chem. Ind.)	36 110	36 100
196	27	Table (Gross Value of Prod.)	396 575	369 575
222	13	2	Fife	Five
227	26	1	27.	26.
245	9	Table (Branches)	1954 1959 = 100)	Percentage 1954 1959 Index (1954=100)
254	35(a)	2	but is	but it
280	13(b)	Table (Professional Level Staff)	32	22
281	(ii)		A new TB hospital with 1t	A new TB hospital with 125 beds will be opened.
344	1	1	The promote	To promote
352	8	10	29 million	2 million
355	17	14	(a)	(d)